

Public Utilities

Volume 61 No. 8



April 10, 1958

THE PRODUCTIVITY OF ELECTRICITY

By Robert W. Rosen

« »

Doghouse(?) after Fifty Years

By George M. Gadsby

« »

When a Utility Franchise Expires

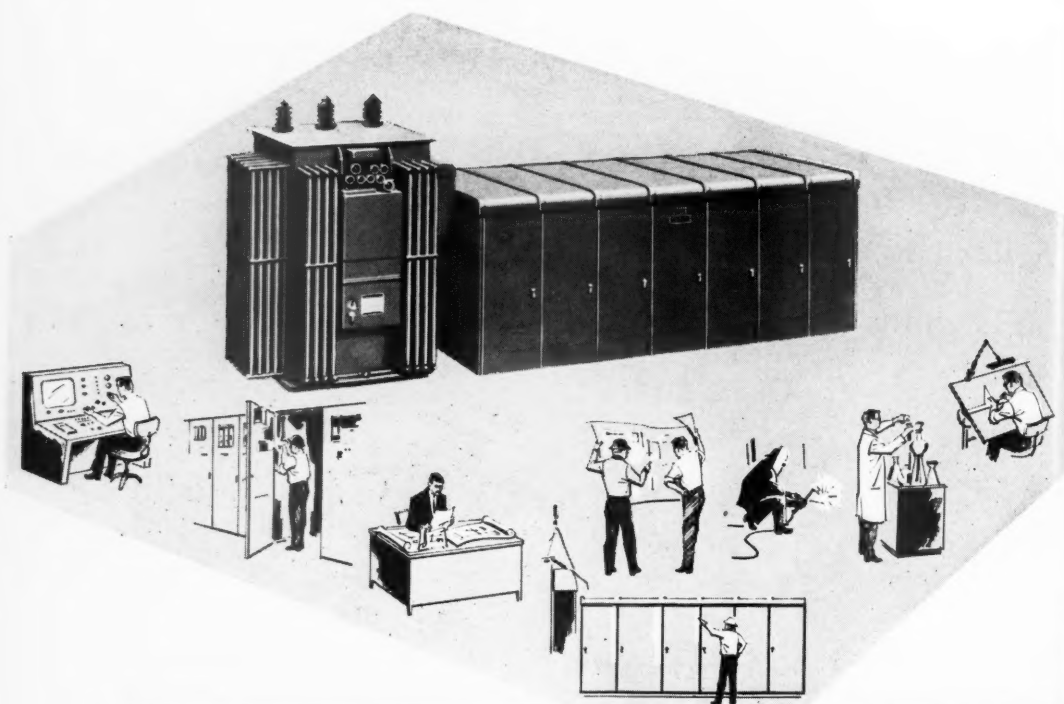
By Thomas C. Campbell, Jr.

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The Business Outlook—Why Economists Disagree

78

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VOLUME 61

APRIL 10, 1958

NUMBER 8



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HOW THESE INSTALLATIONS



Jersey Central Power & Light Company's E. H. Werner Station. Here the success of the B&W Cyclone Furnace Boiler, the first installed in the East, has led to the purchase of two more boilers.

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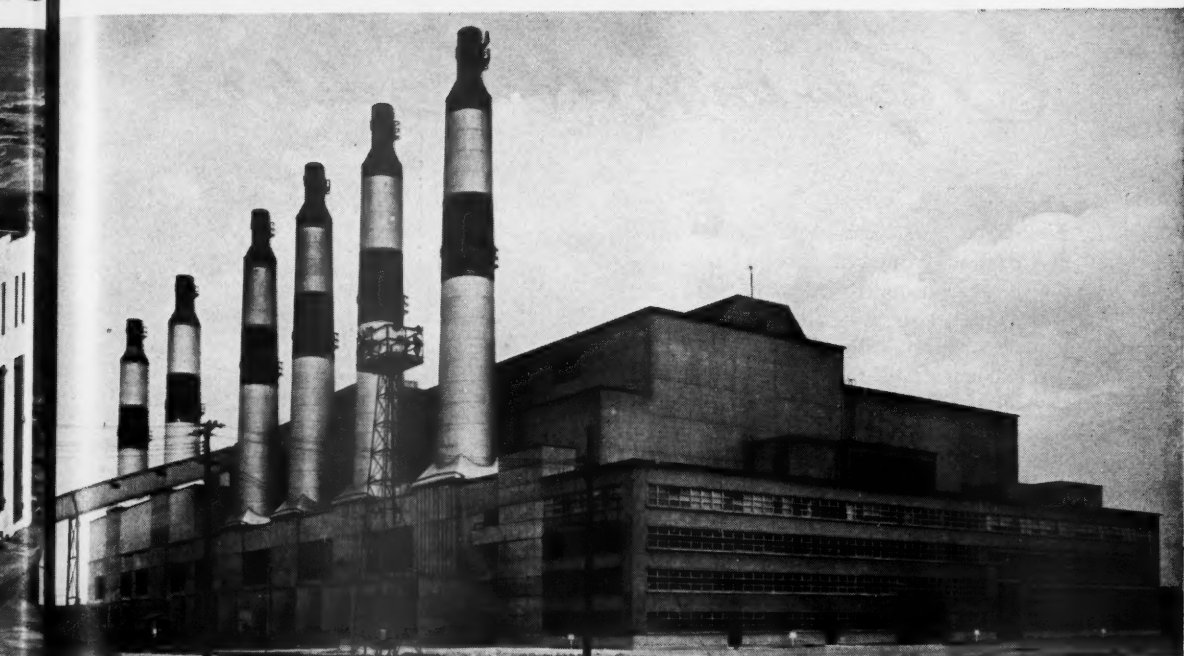
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Pages with the Editors

IT has been less than eight decades since mankind witnessed for the first time the miracle of controlled man-made electric light. This was the clean, bright, flameless illumination brought forth in a "sealed bottle" by the genius of Thomas Edison at the birthplace of the incandescent electric light bulb at Menlo Park, New Jersey. Almost overnight the whole world was aware that this new "genie in a bottle" had been made a servant of the human race, with unlimited powers and untold strength for the conservation of human energy and the constant improvement of living standards.

QUICKLY, also, it was discovered that this new servant had other magical qualities beside artificial illumination. Step by step a whole galaxy of efficient, inexpensive appliances for industry and the household and the farm were perfected and distributed widely. Motive power, heating, measuring, signaling, recording, as well as lighting, were among the duties given to the new servant. And now a new potential is being realized—electronics—which began with the X-ray and the radio and developed into TV and radar and the so-called electric brain.



© Photo by Samuel Cooper

ROBERT W. ROSEN



GEORGE M. GADSBY

BUT what has been the trend in the effective use of electricity consumed and manufactured? In our dynamic society it is often assumed that the productivity of electricity is constantly increasing. It may surprise many, however, to learn that the productivity of electricity in manufacturing operations in the United States actually declined by one-fourth between 1947 and 1955. Stated in another way, 31 per cent more electricity was required in 1955 by American industry than in 1947 to produce an equivalent volume of output.

WHAT could account for this unexpected decrease in productivity? In the opening article in this issue we present a careful analysis of statistical data governing these trends and find that the increase in the use of electricity per unit of productive output was caused by continuous shifts in work loads from labor to electric power. This study emphasizes another of the important contributions which the electric industry makes to the general welfare.

THE author of this leading article is DR. ROBERT W. ROSEN of Brookline, Massachusetts, whose professional background includes: market research director



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THOMAS C. CAMPBELL, JR.

of Modern Materials Handling; director of managerial economics at Plasteel Products; and lecturer, graduate faculty, University of Pittsburgh. DR. ROSEN's degree of Doctor of Philosophy comes from that institution. His Bachelor of Arts comes from Colby College. Some of his previous publications are: "The Industrial Market for Power Cranes"; "Labor's Contribution to Rising Steel Prices"; "The Market for Industrial Trucks"; and "Cost Guides to Management Planning."

* * * *

IT has been over forty years since GEORGE M. GADSBY, chairman of the board of the Utah Power & Light Company (whose article begins on page 511), started in electric utility business as assistant to the president of West Penn Power Company. One of his most outstanding recollections is that of the Battle of Giant Power which occupied the political scene at that time. This was one of the first major moves in the attempt to socialize on a state basis the backbone of the electric power industry. Some of the men whose names were associated with the giant power conception remained consistent in their efforts to establish government ownership.

MR. GADSBY was born in Collinwood, Ohio, in 1885, the son of a Congregational minister. He graduated from Marietta (Ohio) College in 1906 (BA, Magna cum Laude; MA, '07) and then was educated as an electrical engineer at Massachusetts Institute of Technology (BS, '09) and

was awarded an honorary degree of Doctor of Engineering by the University of Pittsburgh in 1941. As he states in his article, he has been associated with the utility industry throughout his business career, and in 1954 retired as president of the Utah Power & Light Company, after heading that company for a quarter of a century. He is a former president of the Edison Electric Institute, past director of the National Association of Manufacturers, past president of Salt Lake Rotary Club and of the Community Chest of Salt Lake City.

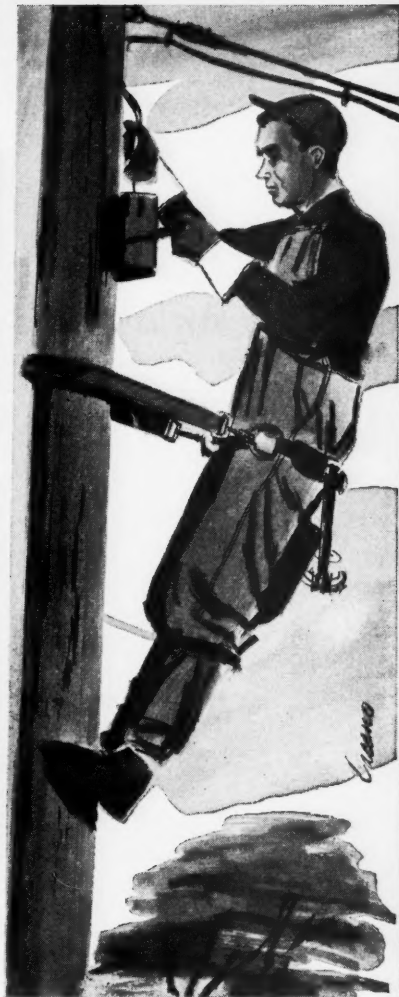
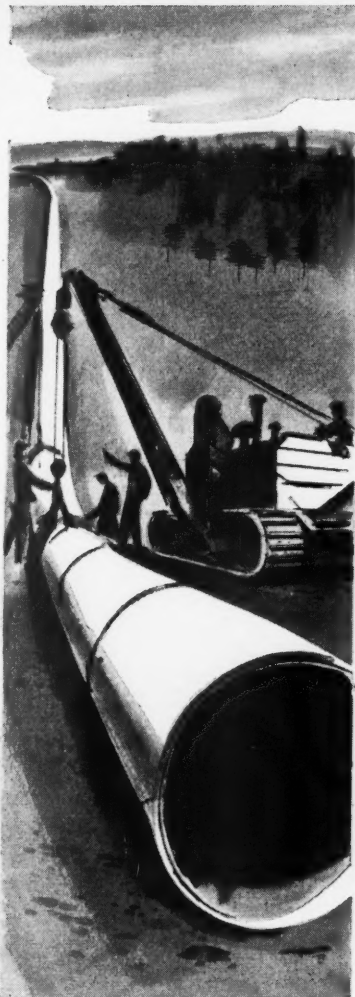
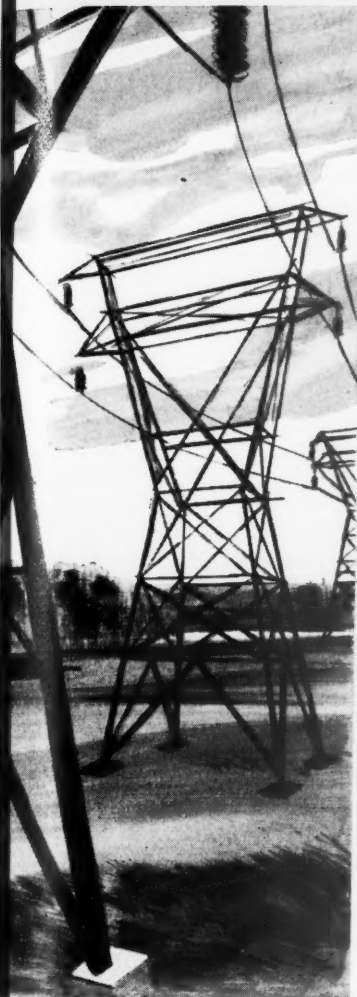
* * * *

FOR many years public utility franchises have been a source of controversy and litigation. From the early history of franchise grants many have been exclusive—meaning that all competition was eliminated in the service area. Subsequently, the franchise was an important instrument of regulation until it was superseded by commission regulation. But the franchise still serves an important function in stating the contractual relationship between the public utility and the municipality or other government area issuing the franchise and the terms of the utility's occupancy. In connection with the levying of local taxes on local customers, reference might be made to an article in the "Progress of Regulation" department of PUBLIC UTILITIES FORTNIGHTLY, October 27, 1955, at page 755.

DR. THOMAS C. CAMPBELL (whose article on what happens when a utility company's franchise expires begins on page 516) is associate professor of economics and assistant dean of the College of Commerce, West Virginia University. He was born in Virginia and graduated from Lynchburg College (AB, '42). He received his PhD from the University of Pittsburgh in 1948. During World War II he was in the Navy as an officer of the Supply Corps.

THE next number of this magazine will be out April 24th.

The Editors



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(April 24, 1958, issue)



A NEW LOOK AT CUSTOMER UNDERSTANDING

Rallying consumer support against public ownership in the utility field is a serious but practical problem which the electric utility industry must face if its survival as part of the enterprise system is to be secure. Kimball I. Jack, vice president, Washington Water Power Company, has been struggling with this problem for years. Now he has put together his observations in the form of an article suggesting definite techniques for mobilizing customer understanding of the public ownership problem. This author takes the position, of course, that ownership and operation of public utilities by business-managed, investor-owned companies are to the real advantage, not only of the utility customers, but the taxpayers at large. This is essentially an "how-to-do" article by a utility public relations expert who has been doing this work on a particularly sensitive firing line of public ownership for some time.

STATE LABOR LEGISLATION FOR PUBLIC UTILITIES' DISPUTES

Mediation in labor disputes means the intervention of a third party without compulsory powers, who seeks to persuade the parties to reach a settlement. A required mediation would mean that the parties to a labor dispute in an essential industry, such as a public utility, must submit their negotiating proceedings to a board of mediation or a mediator. Compulsory arbitration, however, means that the state law requires the parties to a labor dispute to submit the dispute to an arbitrator or board of arbitration whose decision is binding by law on both parties. Richard F. Heiges, presently a social studies teacher in the Columbus, Ohio, high school system, has worked with the Ohio Legislative Service Commission and has made a special study of both mediation and arbitration as approaches to settling utility labor disputes. His article is an objective comparison of these two methods.

MEASURING THE YARDSTICKS

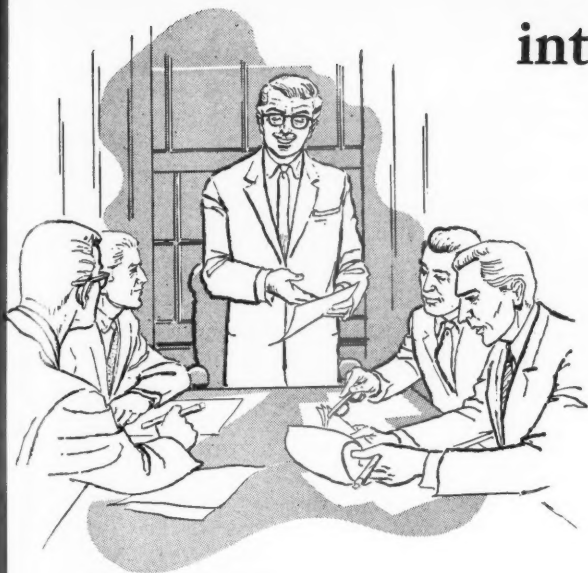
The Tennessee Valley Authority this year celebrates its twenty-fifth birthday. It is now a quarter of a century since it was hailed by the late President Franklin D. Roosevelt as a "yardstick"—presumably for the measurement of electric rates and electric utility operations in other areas of the country. The authority was also, of course, expected to perform various other directly governmental functions and has done so, more or less, in the succeeding years. It has been the quantitative performance and the cost factor of the TVA electric power production, which have brought the so-called "yardstick" concept into dispute. John C. Mellett, former utility publicist of Indianapolis, Indiana, has given some thoughtful attention to what has happened to this yardstick concept. What are the other standards and qualifications besides electric power rates by which TVA performance can be judged today?



Also . . . Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.

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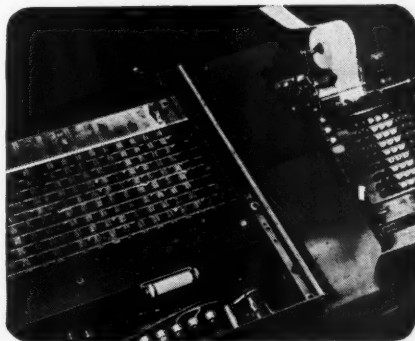
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Columnist.

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WILLIAM H. GRIMES
*Editor, The Wall Street
Journal*

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CHARLES H. WEAVER
*Vice president, Westinghouse
Electric Corporation.*

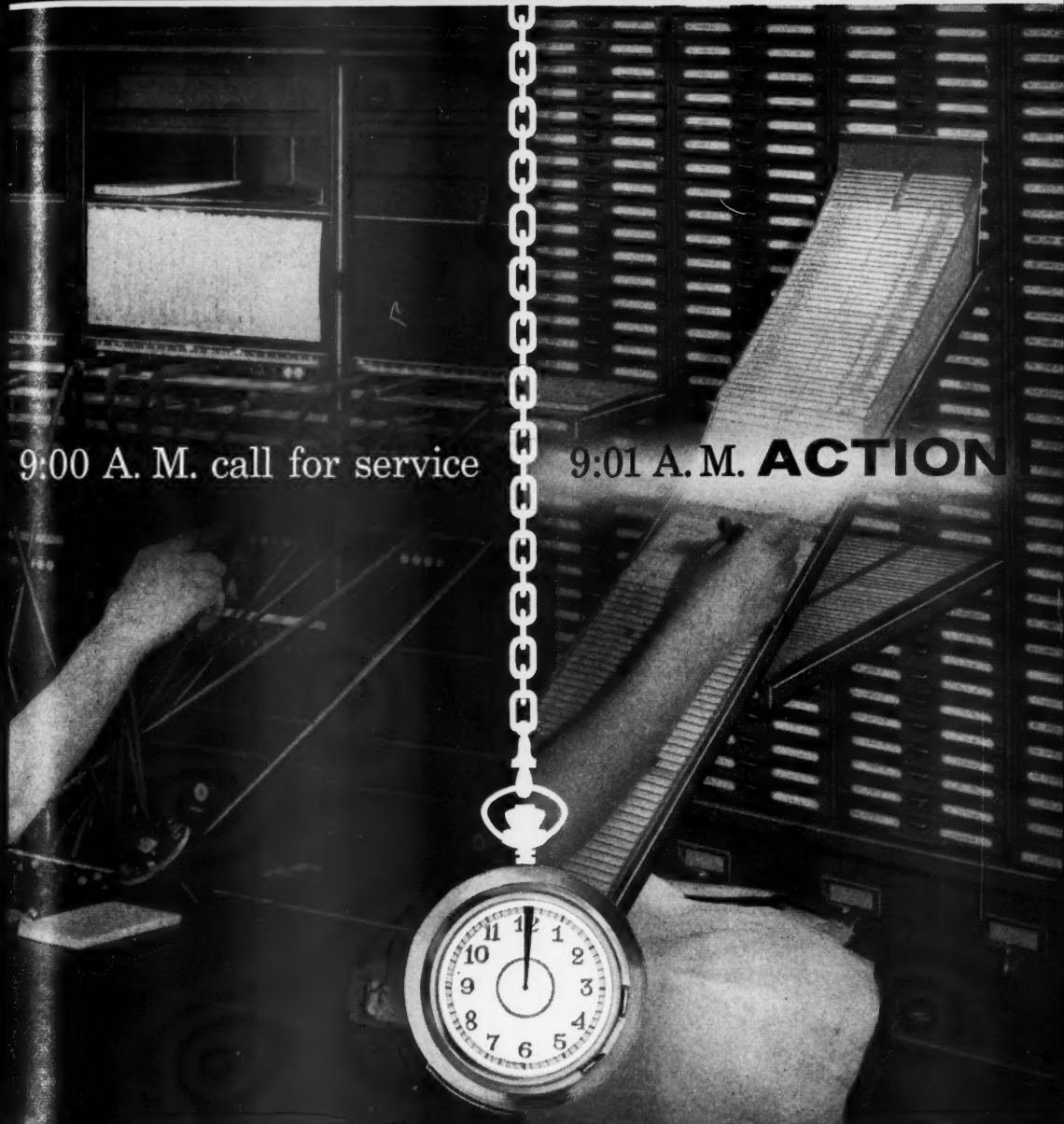
"The outlook for fossil fuels is indeed dark. Before the end of the century the supply of coal, petroleum, and natural gas will be depleted to the point that they can no longer furnish our energy needs. Nuclear power offers the only practical alternate to fossil fuels for meeting our energy requirements. . . . It is quite conservative to estimate that electric-generating capacity in the United States in 2000 will be four to seven times that of today."

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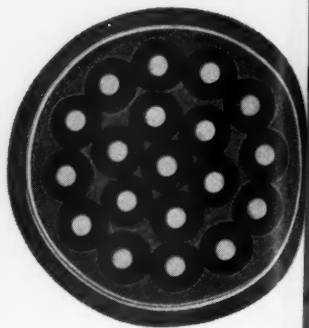
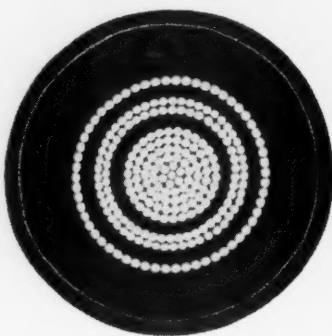
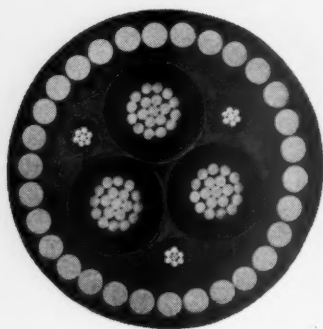
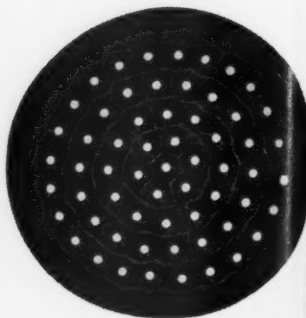
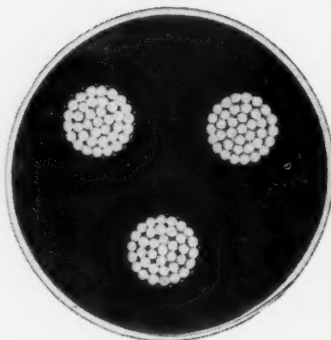
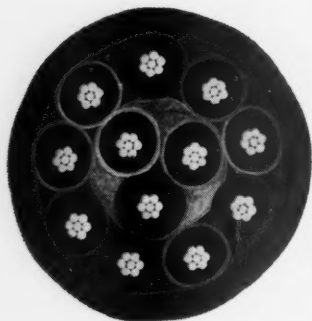
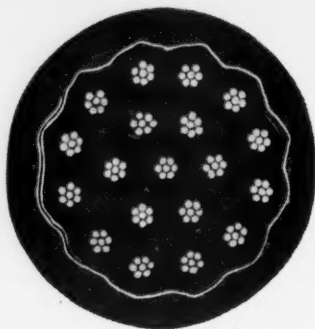
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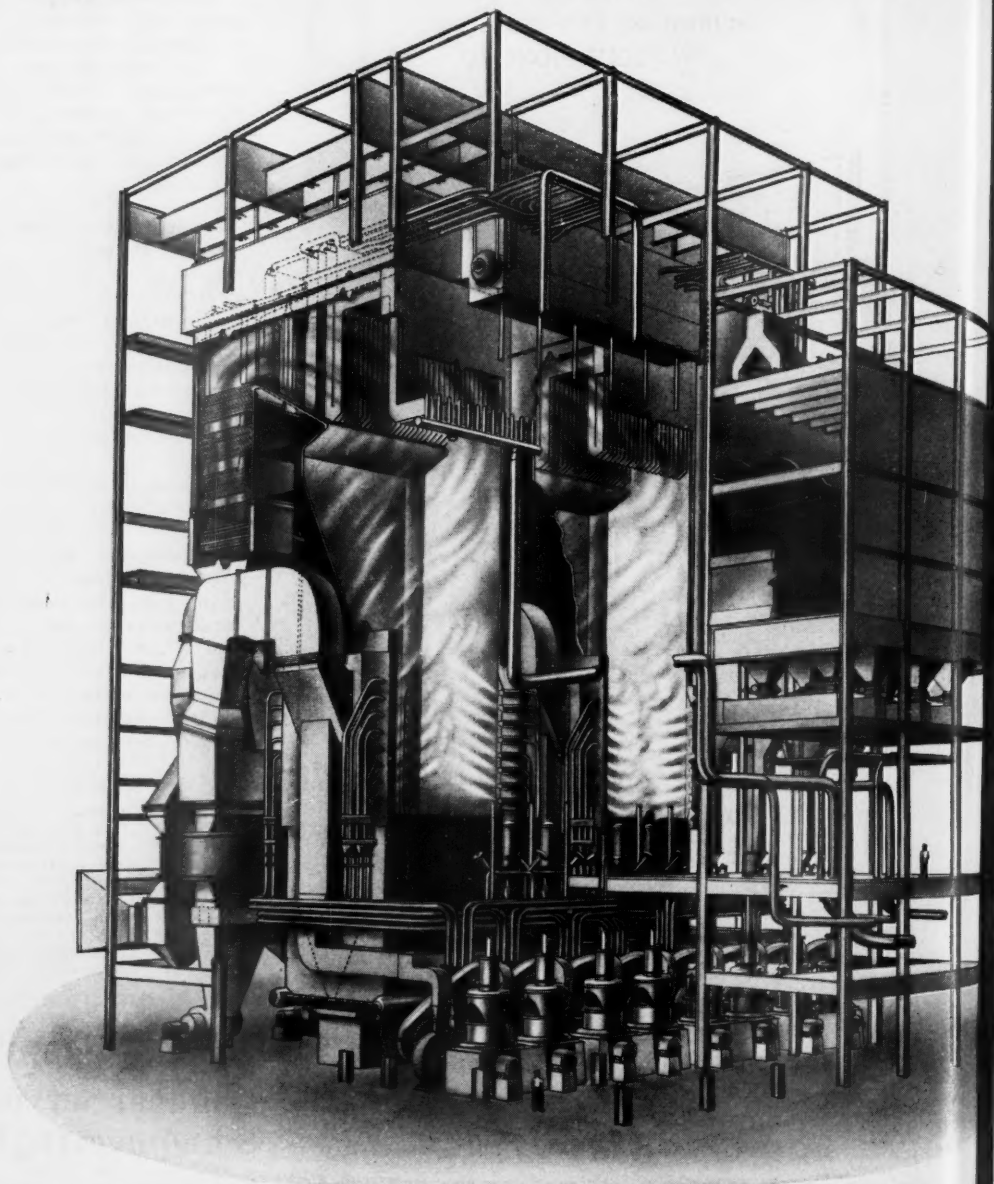


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- 5 The volume of each furnace can be properly proportioned to the heating surface it contains without the use of internal dividing walls. All walls are accessible for cleaning.
- 6 Lighter structural members can be used since load concentrations and spans are considerably reduced using two smaller furnaces in place of one extremely large one.

The facts itemized above tell only part of the story. For instance, C-E Controlled Circulation Boilers offer greater design flexibility, faster load response, steadier water level, shorter outages for maintenance, quicker start-ups and numerous other advantages. The C-E Tilting Tangential Burner exerts tight control over superheat and reheat temperatures and minimizes the use of spray water for desuperheating.

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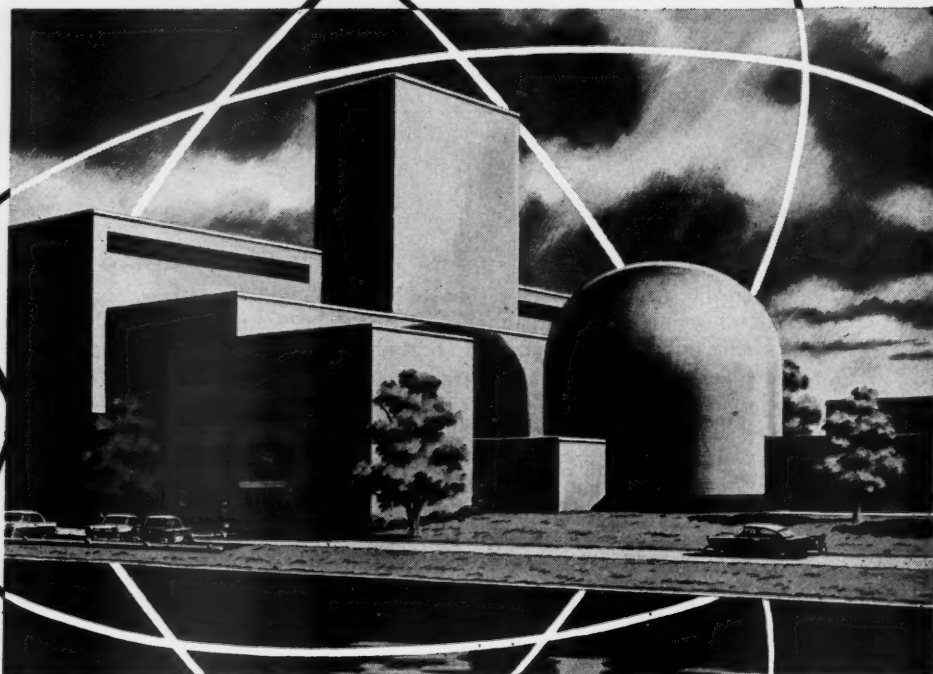


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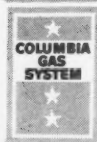
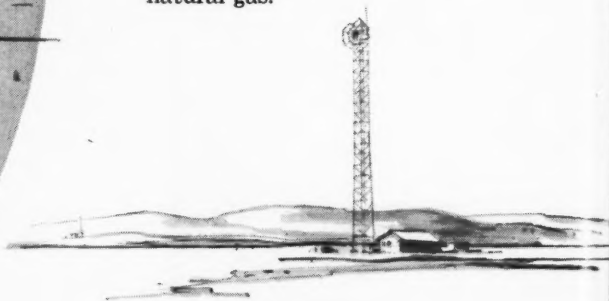
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PUBLIC UTILITIES FORTNIGHTLY—APRIL 1964

UTILITIES

A.l.m.a.n.a.c.k

APRIL

Thursday—10 <i>Microwave Research Institute ends 3-day symposium, New York, N. Y.</i> 	Friday—11 <i>Pennsylvania AP Broadcasters Association begins meeting, Philadelphia, Pa.</i>	Saturday—12 <i>Southern Gas Association will hold annual convention, Dallas, Tex. Apr. 28-30. Advance notice.</i>	Sunday—13 <i>Rocky Mountain Electric League begins spring conference, Denver, Colo.</i>
Monday—14 <i>National Conference of Electric and Gas Utility Accountants begins, Houston, Tex.</i>	Tuesday—15 <i>North Dakota Telephone Association ends 2-day convention, Fargo, N. D.</i>	Wednesday—16 <i>American Water Works Association, Nebraska Section, begins annual meeting, Lincoln, Neb.</i>	Thursday—17 <i>Indiana Gas Association begins annual convention, French Lick, Ind.</i>
Friday—18 <i>American Welding Society ends 5-day annual welding show and technical meeting, St. Louis, Mo.</i>	Saturday—19 <i>Petroleum Industry Electrical Association will hold annual meeting and exhibit, Dallas, Tex. Apr. 29-May 1. Advance notice.</i> 	Sunday—20 <i>American Water Works Association begins annual conference, Dallas, Tex.</i>	Monday—21 <i>Southeastern Electric Exchange begins engineering and operations meeting, Biloxi, Miss.</i>
Tuesday—22 <i>Nebraska Telephone Association begins annual convention, Omaha, Neb.</i>	Wednesday—23 <i>Pacific Coast Electrical Association, Administrative Services Section, begins meeting, Scottsdale, Ariz.</i>	Thursday—24 <i>Pennsylvania Electric Association, Meter Committee, begins meeting, Wernersville, Pa.</i>	Friday—25 <i>Liquefied Petroleum Gas Association will hold annual meeting, Chicago, Ill. May 4-7. Advance notice.</i>



Westinghouse Photo

Five Million-volt Peek

Bird's-eye view down through the interior of the 5.2 million-volt surge voltage generator in the Westinghouse Electric Corporation Transformer Division's high-voltage test center at Sharon, Pennsylvania.

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Public Utilities

FORTNIGHTLY

Vol. 6I, No. 8



April 10, 1958

The Productivity of Electricity

What effective use is made of electricity consumed in manufacturing? In our dynamic society it is often assumed that the productivity of electricity is constantly increasing. It may surprise many, however, to learn that the productivity of electricity in manufacturing operations in the United States actually declined by one-fourth between 1947 and 1955.

By ROBERT W. ROSEN*

It is commonly thought that the productivity of electricity¹ consumed in manufacturing has been increasing steadily. Such expectations are reasonable deductions from known improvements in the distribution and application of elec-

tricity, and from continuing efforts on the part of consumers to reduce the cost of electricity per unit of output. Nevertheless, the productivity of electricity in manufacturing operations actually decreased by 24 per cent between 1947 and 1955, the years when such data were available. Viewed differently, 31 per cent more electricity was required in 1955 than in 1947 to produce an equivalent volume of output.

What could account for this unexpected

*Economic industrial research specialist, resident in Brookline, Massachusetts. For additional personal note, see "Pages with the Editors."

¹"Productivity of electricity" is the ratio of industrial output to "general" electricity consumed in industry; i.e., excluding atomic, commercial, and other. Both series were obtained from: Federal Reserve Board, *Federal Reserve Board Bulletin*, October, 1956.

PUBLIC UTILITIES FORTNIGHTLY

ed decrease in the productivity of electricity? Does it mean that managerial efforts to utilize electric power more effectively, were progressively unsuccessful? Or, did management deliberately engender such reductions in order to achieve more important objectives in some other areas?

Answers to these questions may provide useful insights for industrial executives concerned with controlling production costs, for sales executives in electric utility companies concerned with developing industrial markets for their product, and for those seeking a better understanding of managerial decisions affecting costs.

The analysis consists of four parts. Part I briefly reviews adjustments in the productivity of electricity between 1947 and 1955. Parts II and III analyze and explain the significance of those adjustments. Part IV concludes the analysis with a summary of findings.

I. Trends

PRODUCTIVITY. Industrial output per unit of electricity consumed declined steadily between 1947 and 1955: by 13 per cent between 1947 and 1951; and by another 13 per cent between 1951 and 1955, thus accounting for the 24 per cent decrease over the entire period. Decreases were recorded in all but one of the seven observations, indicating the consistency of the downward trend as well as the likelihood of still further decreases, if past trends continue.

Changes in the productivity of electricity obviously reflect differing rates of change in its numerator and denominator: industrial output and the quantity of electricity consumed in manufacturing.

Accordingly, attention now turns to these two variables.

INDUSTRIAL OUTPUT AND ELECTRICITY CONSUMED. Comparing the terminal years 1955 and 1947, industrial output increased by 40 per cent and electricity consumed by 83 per cent. During the first four years, their increases were 21 per cent and 38 per cent, respectively, and, in the second four years, 16 per cent and 33 per cent, respectively. Out of seven observations, output advanced in six and the consumption of electricity in five. The two varied directly in all but one year.

Four conclusions may be drawn from the data. First, decreases in the productivity of electricity were almost always the result of increases in industrial output accompanied by still larger increases in the quantity of electricity consumed. Second, advances in industrial output seemed to require increases of twice as much in the supply of electricity. Hence, a steadily expanding supply of electricity may be required to underwrite future gains in industrial output, thus indicating the importance of the electric utility industry.

Third, changes in the level of industrial output may be used to anticipate the direction, but not the rate of change in the industrial consumption of electricity. Efforts to forecast the rate of change would have to consider adjustments in industrial output, as well as in the amount of electricity consumed per unit of output; *i.e.*, the reciprocal of the productivity ratio. In this connection, it may be noted that each of these two variables accounted for about half of the 83 per cent increase in electricity consumed — thus providing one guide for estimating future consump-



The Effect of Hourly Cost Changes

“WITH productivity held constant, changes in unit costs are measured by changes in hourly costs. Thus, unit wage cost would have risen by 50 per cent, and the cost of electricity per unit of output would have decreased by 8 per cent. Applying the Mills formula shows that, under these circumstances, total unit cost would have increased by 10 per cent, or by nearly four times as much as the actual increase of 2.53 per cent. Thus, although swapping productivity adjustments did not actually succeed in reducing total unit cost, it did succeed in restraining the extent of the increase—itself a noteworthy accomplishment, considering the inflationary pressures of the 1947 to 1955 period.”

tion levels. Fourth, the consumption of electricity is not always a reliable yardstick of industrial growth, although it is often used in this manner.

II. Underlying Causes—First Stratum

A MORE profound explanation of these data may be gained once it is realized that productivity of electricity is part of a network of forces impinging upon output per man-hour, or labor productiv-

ity. Specifically, changes in labor productivity may be attributed to changes in the productivity of electricity or in the ratio of electricity to man-hours of employment. This is readily demonstrated by the formula:²

² Man-hour data were derived by dividing manufacturing payroll (Department of Commerce, *Survey of Current Business*, February, 1957, and February, 1953) by average hourly wage earnings in manufacturing (Bureau of the Census, *Statistical Abstract of the United States*, 1957).

PUBLIC UTILITIES FORTNIGHTLY

$$\frac{\text{Output}}{\text{Man-hours}} = \frac{\text{Output}}{\text{Electricity}} \times \frac{\text{Electricity}}{\text{Man-hours}}$$

Carrying forth the operations in the equation shows that the factors on the right-hand side of the equation must account for all the changes in output per man-hour. Accordingly, investigations here may uncover the pressures underlying the receding trend in the productivity of electricity, as well as its rôle within the larger framework of managerial decisions affecting costs.

The analysis may well begin with a brief review of the course followed by these three variables. Output per man-hour increased by 36 per cent between 1947 and 1955 as the result of a 78 per cent increase in the ratio of electricity to man-hours and of a 24 per cent decrease in the productivity of electricity. During the first four years, the relative contributions to the 17 per cent increase in output per man-hour were: 34 per cent by the electricity man-hour ratio; and minus 13 per cent by the productivity of electricity. And, finally, a 16 per cent increase in labor productivity between 1951 and 1955 was accounted for by a 32 per cent increase in the input ratio and a decrease of 13 per cent in the productivity of electricity.

THE trends in labor productivity and in the electricity man-hour ratio were distinctly positive, whereas those of output per unit of electricity were distinctly negative. The consistency of these relationships is indicated by the fact that labor productivity varied directly with the former in every period, and inversely with the latter in six of seven observations.

Regarding rates of change, advances in

labor productivity were associated with decreases of somewhat similar magnitude in the productivity of electricity and with increases of nearly twice as much in the electricity man-hour ratio. Hence, all of the upward trend and shorter-term increases in labor productivity were accounted for by concomitant adjustments in the electricity man-hour ratio.

But, increases in labor productivity were associated with increases of twice as much in the ratio. This suggests that part of the production burden, or work load, was shifted from labor to electric power. Such shifts would also account for the downward trend in the productivity of electricity, as well as for the similar but opposite rates of change in the two productivity indexes.

Summarizing, decreases in the productivity of electricity seemed to have been the result of managerial efforts to increase labor productivity by transferring production responsibilities from labor to electric power. Viewed differently, decreases in the productivity of electricity were exchanged for increases in labor productivity.

WHAT should management undertake such exchanges? What was to be gained? Normally, such maneuvers are instigated to reduce total manufacturing cost per unit of output—the prime objective of cost control decisions. Superficially, it would appear that a 36 per cent increase in labor productivity would more than offset the upward pressure on total unit cost exerted by a 24 per cent decrease in labor productivity. This is not necessarily true, however, inasmuch as the change in total unit cost is determined not only by relative rates of change in the two

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THE PRODUCTIVITY OF ELECTRICITY

productivity indexes, but also by the relative importance of wages and electricity in the structure of costs. Moreover, even if there were a net gain from swapping productivity adjustments, the question still remains: By how much was total unit cost reduced?

In order to determine the net change in total unit cost, two approaches will be used. The first seeks to determine the net change arising solely from adjustments in the two productivity indexes by disregarding concomitant changes in hourly costs. The second measures the disposition of total unit cost when both productivity and hourly cost changes are considered. The first approach emphasizes what management hoped to accomplish. The second shows what was actually accomplished.

The engine of analysis is the same in both cases. In order to compute the net change in total unit cost, one need only multiply the change in productivity, first case, or in unit cost, second case, by their respective share of total cost in the base period.³

III. Underlying Causes— Second Stratum

CASE I: Hourly Costs Not Considered.

Disregarding concomitant adjustments in the cost per kilowatt-hour of electricity, the 24 per cent decrease in the productivity of electricity multiplied by 1 per cent,⁴ the approximate share of total manufacturing cost accounted for by electricity yields 0.24 per cent, or the upward pressure on total unit cost exerted

by the 24 per cent decrease in the productivity of electricity. Similarly, the increase in labor productivity, 36 per cent, multiplied by wage's share of total cost, 20 per cent,⁵ yields 7.2, or the downward pressure on total unit cost exerted by the increase in labor productivity. The difference between 7.2 per cent and 0.24 per cent, 6.96 per cent, is the net decrease in total unit cost arising from countervailing adjustments in the two productivity indexes.

Hence, decreases in the productivity of electricity were encouraged in order to reduce total unit cost by permitting more important gains in the productivity of labor.

CASE II: Hourly Costs Considered.

Whether the 6.96 per cent reduction in total unit cost was actually achieved depends on corresponding changes in the cost per hour of electricity and of wages. Productivity adjustments corrected for changes in hourly costs are expressed by changes in cost per unit of output. For examples, the 24 per cent decrease in the productivity of electricity corrected for the 8 per cent decrease in the cost of electricity per kilowatt-hour⁶ yields 21 per cent, or the increase in the cost of electricity per unit of output. Similarly, the 36 per cent increase in labor productivity corrected for the 50 per cent increase in hourly wage rates⁷ yields 11.6 per cent, or the increase in unit wage cost.

Weighting these increases in the two unit costs by their respective shares of total cost in the base period indicates that total unit cost would have risen by 2.53

³ This technique was developed by F. C. Mills in his *Economic Tendencies in the United States*, pp. 117, 118.

⁴ and ⁵ Bureau of the Census, *Census of Manufactures, 1947*, Volume I.

⁶ Edison Electric Institute, *Statistical Bulletin*, 1956 and 1952.

⁷ Bureau of the Census, *Statistical Abstract of the United States*, 1957.

PUBLIC UTILITIES FORTNIGHTLY

per cent, all other unit costs remaining the same. The relative contributions to this 2.53 per cent were: unit wage cost, 2.32 per cent; and the cost of electricity per unit of output, 0.21 per cent.

SUPERFICIALLY, then, one might conclude that exchanging productivity adjustments was fruitless, inasmuch as total unit cost increased nevertheless. However, a more meaningful benchmark for comparison would be the level of total unit cost if the exchange in productivity adjustments had not occurred; *i.e.*, assuming that both productivity indexes had remained at their original levels.

With productivity held constant, changes in unit costs are measured by changes in hourly costs. Thus, unit wage cost would have risen by 50 per cent, and the cost of electricity per unit of output would have decreased by 8 per cent. Applying the Mills formula shows that, under these conditions, total unit cost would have increased by 10 per cent, or by nearly four times as much as the actual increase of 2.53 per cent. Thus, although swapping productivity adjustments did not actually succeed in reducing total unit cost, it did succeed in restraining the extent of the increase—itself a noteworthy accomplishment, considering the inflationary pressures of the 1947 to 1955 period.

IV. Summary

STEADY decreases in the productivity of electricity were caused by continuous shifts in work loads from labor to electric power. This in turn raised the level of

labor productivity. The end result of these productivity exchanges placed a strong restraint on advances in total unit cost.

Accordingly, decreases in the productivity of electricity arose not from progressively less effective means of generating, distributing, or employing electricity, but rather from managerial efforts to control increases in total unit cost.

Three additional observations may be in order. First, the findings in this study show that total unit cost can be reduced, or increases restrained, by increasing one cost in order to achieve more important savings in some other cost. Savings of this type may be obscured if exclusive emphasis is placed on reducing each category of cost, thus limiting the effectiveness of cost control programs. Second, the relative importance of cost proportions, or prospective changes in hourly costs, productivity, or even individual costs, alone, are incomplete guides for directing cost control efforts, or for estimating the effect of proposed programs. Consideration must be given to all four of them.

THIRD, and last, the present study emphasizes the many contributions of the electric utility industry to the general welfare. Ample and inexpensive supplies of electricity have made important contributions to industrial growth; to raising the productivity of labor, thus providing a foundation for higher living standards; and to restraining inflation by limiting increases in the prices of manufactured products.

Doghouse (?) after Fifty Years

It is over four decades since the author started in the electric utility business as assistant to the president of West Penn Power Company. One of his most outstanding recollections is that of the Battle of Giant Power which occupied the political scene at that time. This was one of the first major moves in the attempt to socialize on a state basis the backbone of the electric power industry. Some of the men whose names were associated with the giant power conception remained consistent in their efforts to establish government ownership.

By GEORGE M. GADSBY*

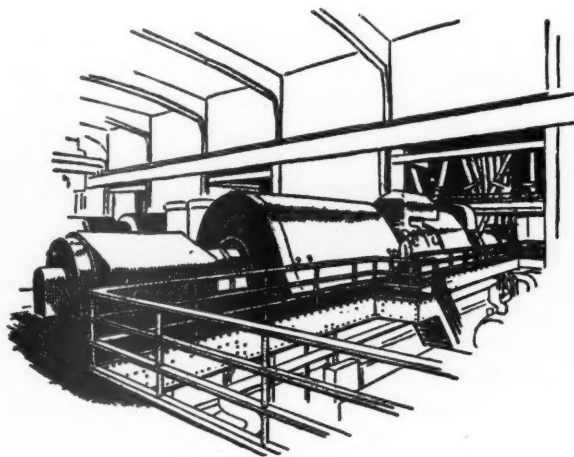
CHAIRMAN OF THE BOARD, UTAH POWER & LIGHT COMPANY

IN selecting my title with its significant question mark, I want to deal briefly with the attempts in quite recent times to disparage the electric companies and keep them in the political doghouse. From many contacts throughout the entire United States, I know that people in the electric utility industry have not been seriously affected by this psychological barrage and attempted brain washing. On the contrary, we have continued on our upward way with better equipment, excellent service, and, in general, good re-

lationships with our millions of customers. The most ardent advocates of the socialistic theory of government ownership have not succeeded in building a doghouse which has either merited or received more than a passing and rather contemptuous glance from the public we serve. No, the doghouse is empty and the continued creeping of Socialism is due to misconceptions and the innate desire of some folks to get something for nothing.

This does not mean that progress in public ownership at the tax expense of the people of the entire nation has not made progress. It is still appealing to the local

*For additional personal note, see "Pages with the Editors."



PUBLIC UTILITIES FORTNIGHTLY

beneficiaries of the Tennessee Valley Authority, the Pacific Northwest, and other areas. Stupendous sums of tax money have been spent benefiting the local economies and promising "cheap power" with which such areas may entice industry from those served by companies with regulated accounting and full responsibility for taxes and the hire of money.

LET me suggest that we have failed to make clear to the public generally the real source of taxes paid by the electric companies and their function as collection agencies. The government power proponents hammer away with the statement that public power should not pay taxes because this would mean that the government, be it local, state, or federal, would simply be taxing itself. In the same breath they emphasize the fact that taxes paid by the electric companies are collected as a part of the rates charged and, therefore, the consumer is the real payer. This latter contention we grant, but is it not crystal clear that equivalent taxes should be paid by the users of government power since the electric service intrinsically in either case is not the taxpayer, but only the tax collector?

To put it simply, if it be a part of our governmental policy to use electric service as a measure of a tax obligation and have the purveyors of that service act as the tax collector, then by any measure of fairness the tax-paying citizens should include all users of electric service. With this concept we recognize the American citizen as the ultimate payer and I really believe if this confusion about the tax situation can be brushed aside and the position of the citizen as a taxpayer made clear, no fair-minded man or woman

would object to uniformity. They expect uniformity in the assessment of merchandise excise taxes and, within the provisions of the law, in income taxes. Parenthetically, one may gag at classifying our income tax structure as either fair or uniform, but, such as it is, it must be enforced without regard to geography. A Tennessean in the TVA area is charged the same on equal taxable income as a citizen of Philadelphia.

LET us take a look at another false premise upon which favoritism is shown and political support obtained by the proponents of government power. This one we can dispose of quite briefly by answering the question who are *the people*? In the recent TVA income bond debate we heard the often repeated argument that power revenues are properly used for property extensions instead of reduction of power appropriations because the TVA belongs to the people. Therefore, it is argued, the property additions are an increase in the equity value of the people's investment. The flaw is in the implied assumption that "the people" refers to the same group in every instance. Actually "the people" involuntarily putting up through taxes the appropriated money include every taxpayer from Maine to California, whereas "the people" who benefit by the property additions are only a comparatively few local area electric users.

The same faulty premise is used in support of the preference clause—"the people" put up the money for federal projects, therefore, "the people" should have first call on the "cheap-by-subsidy" power! Again all taxpayers—"the people" on the paying side; but only local beneficiar-



No Doghouse for the Electric Utilities

"THE most ardent advocates of the socialistic theory of government ownership have not succeeded in building a doghouse which has either merited or received more than a passing and rather contemptuous glance from the public we serve. No, the doghouse is empty and the continued creeping of Socialism is due to misconceptions and the innate desire of some folks to get something for nothing. This does not mean that progress in public ownership at the tax expense of the people of the entire nation has not made progress."

ies—"the people" on the receiving side. When, if ever, the "tax-paying people" of the country as a whole realize the unfairness to them of this foreshortened equation, insistent demand will be made that on both sides "the people" must be the same.

THERE were several significant legislative actions taken during the first session of the 85th Congress which, if finally enacted into law, would mark great victories for the government power advocates over the interests of the taxpayers at large.

The TVA revenue bond bill introduced by Senator Kerr and the Senators from the states benefiting from TVA is, among

other things, a revocation of the assurance contained in all earlier TVA appropriation bills that the money put up by all federal taxpayers and appropriated for building facilities for supplying service in the TVA area would be returned with interest. The Kerr Bill would repeal these assurances. It would substitute instead a provision, for whatever it may be worth, that after servicing the income bonds both as to principal and interest there would be created such special reserves as might be required by the holders of said bonds and such other provisions as the corporation "may deem necessary or desirable to enhance the marketability of said bonds." There would be paid to the United States Treasury "a return" and an annuity of

PUBLIC UTILITIES FORTNIGHTLY

\$10 million. Such payments of return and annuity could be deferred for two years whenever the TVA directors decided such payments could not feasibly be made. At \$10 million a year, if everything stays favorable, the federal taxpayer might get his money back in about 195 years. Even this \$10 million payment was not intended by the Senators who introduced the bill and it is not in the companion House bill which still awaits action.

This is a far cry from the representations made when Congress accepted and passed the first TVA bill. It shakes confidence in any such protective provisions written into our federal laws.

THE activities of the Rural Electrification Administration are of comparable character. The provisions of the original act were to finance a 10-year make-work program at a total cost of some \$400 million to supply rural areas, excluding towns of 1,500 population and over, and to provide generating and transmission facilities only when service at reasonable cost could not be obtained from existing suppliers.

The deviations from this program are now well known. Suffice it to say that including the appropriation for fiscal year 1958 some \$3,856,000,000 have been authorized, over \$750 million of which is in loans approved for generation and transmission purposes. This despite the fact that REA payments for wholesale power during year ended June 30, 1956, cost an average of 8 mills for power purchased from electric companies against 11.9 mills for REA-generated power, and 10.1 mills for power purchased from municipal systems. Only the subsidized tax-free federal projects and some of the state, county,

and district agencies supply cheaper power than the rate paid the electric companies.

To show how far the REA has progressed outside the field of farm electrification, consider the case of the nine Indiana co-ops calling themselves "Hoosier Co-operative Energy, Inc." This super co-op has applied to the REA in Washington for a \$42 million loan to finance a large part of an electric generating plant of 198,000 kilowatts and to build a network of some 800 to 900 miles of transmission lines in areas already covered by transmission and distribution lines which do or can supply service to every farm therein. The hidden factor of importance is that a large part of this expenditure will be made to supply an aluminum plant at a rate predicated on repayment of the \$42 million in thirty-six years at 2 per cent interest. In a pamphlet recently published by the Public Service Company of Indiana it is stated that the actual facts about this loan and its purposes have been withheld even from the public service commission of Indiana.

My purpose in citing this case is to show how far government power proponents can and will go, while at the same time carrying on their diversionary tactics such as the agitation against the Dixon-Yates agreement, the howl about the rapid amortization certificate for tax purposes issued to but subsequently returned by Idaho Power Company, and the abuse heaped upon administrative agencies whenever they fail to go along with the socialistic program.

OTHER specific instances of like character can be cited. I shall mention but two:

DOGHOUSE (?) AFTER FIFTY YEARS

The recently enacted 1958 Atomic Energy Commission appropriation act which directs the commission, against its expert judgment, to build atomic energy reactors for three rural co-ops, the Public Power District of Nebraska, and the city of Piqua, Ohio. The federal taxpayers are to put up all the money, take all the risks on the reactors, pay all operating and maintenance costs, then charge these public power agencies only the calculated cost of the steam on the basis of generation in conventional fossil fuel boilers. The report on this appropriation act made by the Joint Committee on Atomic Energy, HR 8996, particularly the separate statement of the minority members, is most revealing.

The second instance to which I could refer is Senate Bill 2847 introduced by Mr. Magnuson and a group of northwestern undeviating public power Senators. This bill would take away from the Federal Power Commission the authority to license private dam projects except upon prior congressional approval. As pointed out by the *P. U. R. Executive Information Service Letter* of August 30, 1957, this measure would strip the FPC of any discretionary authority to license so-called "inferior" private dam projects without specific and prior authority.

APPARENTLY it is the intention of this bill to destroy the Federal Power Commission as an independent agency. In specifying the criteria to be applied in making comparison between federal and private development, the bill specifically requires that the federal estimates will include only interest at the average rate on all outstanding marketable obligations of

the United States Treasury, while the estimates of a private corporation or a non-federal agency shall be based on actual costs to be incurred by or accrued to the private corporation or nonfederal agency.

Nonreimbursable beneficial uses to be credited to federal developments are much enlarged and, in addition to everything heretofore enumerated, are to include "enhancement of water front real estate values, bank stabilization, control of beach erosion, improvement in water quality," etc. If taxpayers in other areas submit to such a program and pay their hard-earned tax dollars to "enhance the water front real estate values" in Washington, Oregon, and Idaho, they are more gullible than those customers P. T. Barnum once welcomed into this world!

IN conclusion we can agree that the business-managed electric industry is not in any real "doghouse," but only such an adobe one as might have been created by the mudslinging of opponents of the private enterprise system. The record of accomplishment in service, magnitude of financing accomplished, great projects actually built, supercritical steam plants, and the resistance to inflationary costs peculiar to this great industry must enlist favorable public opinion. But these facts must all be known in simple language, predicated on the theme that private industry is the protector of the people's rights against the protagonists of ever bigger government expenditures, government subsidies, government preferences for one group of citizens over another, and the long-term political and ideological objectives of the public power proponents.



When a Utility Franchise Expires

The franchise still serves an important function in stating the contractual relationship between the public utility and the municipality or other government area issuing the franchise, and the term of the utility's occupancy.

By THOMAS C. CAMPBELL, JR.*

PUBLIC utility franchises have been the subject of many court cases, some political activity, and much consideration by economists and other writers of public utility subjects. Many phases of franchises have been treated thoroughly. However, the course to be followed at the expiration of a franchise when the utility and the municipal authorities are unable to agree on the terms of a renewal of the franchise has not been determined. This is to be a consideration of the problems involved when the two parties are unable to reach such an agreement.

A recent illustration of this problem has taken place in Morgantown, West Virginia, with the expiration of the telephone franchise held by the Chesapeake & Potomac Telephone Company of West Vir-

ginia. Terms of a new franchise suggested by the city and by the company have been so far apart that no settlement has been reached. The fight has reached both the local court and the public service commission of the state. Telephone workers have been arrested for working on company property when they did not have special permits from the city. The city ordered the company to remove its property from the streets, alleys, and other public ways and levied a tax on the company which was disallowed by the local court. These and other related factors have led to the need for a thorough consideration of the problems involved in renewing franchises and conflicting interests of the utility companies and municipalities in regard to franchise terms.

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BECAUSE of the nature of most public utility service, it is necessary for the

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utility to use streets, highways, alleys, and other private property for placing poles, wires, and pipes. A public utility franchise is a grant by a city or other subdivision of the state authorizing the use of public property in furnishing the service. Although the principal function of a franchise is to permit a company to occupy streets and other public places in providing the designated service, it usually includes various terms and conditions under which the service is to be rendered.

"Before 1900, the franchise was virtually the only device that had been developed through which the public interest could be protected, and it had been essentially the product of the preceding fifty years."¹ During this early period, the franchise did not provide an effective means of public control over rates and service. Rates fixed and written into the franchises became too inflexible to meet conditions faced by the rapidly growing utility industries which had not had long enough and definite enough experiences on which to base such important decisions.

Since about 1920, the franchise has no longer been the primary instrument of public control over utility rates and services for these powers, as a rule, rest with the state commissions. On the other hand, the franchise remains an important instrument in the utility business as it is the agreement between the municipality which owns the public property occupied by necessary items of the plant of the company and the utility company owning the facilities through which the highly essential service is provided to the community. When the franchise expires, this agreement no longer exists unless there is an

extension or renewal of the agreement so that the service might not be interrupted and the municipality can have some basic understanding of the obligation of the company to the local government.

Legal Status of a Franchise

THE state is the primary franchise-granting authority and has supreme authority over the use of streets and public highways, except as otherwise provided in the state Constitution. The state legislature has the power to delegate to local authorities the power to grant municipal franchises.²

From the early history of franchise grants, many of them have been exclusive, meaning that all competition is excluded from the area served by the utility. Even though around the turn of the century there were many competing street railway, electric, and telephone companies, most of the competition was short-lived; and utility companies have exclusive right to provide the type of service in which they are engaged within the space limits designated in the franchise. This exclusiveness, however, is not solely because of the nature of the franchise. Other factors such as limitation of supply, time, space, and economic conditions of operation are equally important.³

The franchise has long been recognized as a contract between the granting authority and the utility company. In 1819, this was affirmed by the Supreme Court of the United States in the famous Dartmouth College case. There have followed many cases involving what rights the state

¹ *The Public Utility Franchise, Its Function and Terms under State Regulation*, by John Bauer, Public Administration Service No. 96, 1946, p. 1.

² *Elective Franchises in New York City*, by Leonora Arents, Columbia University, New York, New York, 1919, p. 18.

³ *Public Utility Economics*, by C. Woody Thompson and Wendell R. Smith, McGraw-Hill Book Company, Inc. New York, New York, 1941, p. 167.

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can contract away, under what conditions one party to a franchise might be bound and the other not, the power of the state regulatory commissions over provisions of franchises, and many other phases of utility operations related to provisions of the franchises.

Franchise Taxes

DURING the period prior to state commission regulation of utility rates and services, holders of certain franchises received extremely high profits, although such cases were very likely fewer than were thought by the general public. None the less, various franchise taxes were collected to recover some of the excessive profits and to tax intangible utility values that had escaped the general property tax. These taxes, commonly known as franchise taxes, include capital stock taxes, flat sum payments, physical unit taxes, gross earnings taxes, and net income taxes.⁴

Legally, the amount of these taxes can be recovered from the customers as they are considered to be expenses and not a part of the return to owners of the company.

However, there is a basic problem as to whether the tax is to be recovered from

the ratepayers of the entire company or from those residing within the corporate limits of the municipality collecting the tax. In the former, the burden of the tax rests upon those who receive no benefit from the tax as well as those who do benefit from it. In the latter, the burden rests only upon those who benefit.

Decline of Franchise Regulation

THE franchise very early proved to be an inadequate device for regulating service of public utilities. Utility commissions were created in New York and Wisconsin in 1907. With approval by the courts, the commissions were soon able to assume regulatory powers which had formerly been held by the municipalities through franchises but had become ineffective with the geographic expansion of the utilities beyond the boundaries of a single city.

Furthermore, some cities found that utilities had to be allowed to raise rates above those specifically written in the franchises if the service was to continue until the franchise expired. Because of the general inflexibility of franchise regulation, state commissions proved much more effective in providing sound continuous regulation of rates and services of utility companies.



Q "SINCE about 1920, the franchise has no longer been the primary instrument of public control over utility rates and services for these powers, as a rule, rest with the state commissions. On the other hand, the franchise remains an important instrument in the utility business as it is the agreement between the municipality which owns the public property occupied by necessary items of the plant of the company and the utility company owning the facilities through which the highly essential service is provided to the community."

⁴ *Ibid.*, p. 562.

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Importance of Modern Franchise Regulation

IN view of the widespread growth of utilities beyond the boundaries of cities and the creation of state commissions since 1900, the question of whether franchises serve any purpose has frequently been raised. State commissions have been given responsibilities for rate and service regulation which was exercised through franchises prior to organization of the commissions. However, the streets and alleys are owned by the cities; and it is not within the powers of commissions to determine the arrangements or agreements between municipal governments and utility companies. No person or corporation has a right to occupy streets and alleys for private gain unless permission has been granted by the municipal government.

A public utility cannot function without using public property. Consequently, a franchise is essential to its existence. This is so important that courts have devised the so-called day-by-day franchise for companies rendering service after their franchises have expired and have not been renewed or extended. Each day that such a company has not been ordered to vacate public property, the company is assumed to have, by implied consent, a franchise to continue in business.⁵

Franchise Expirations and Renewals

WHILE there have been some perpetual franchises, meaning no expiration dates, the common practice is to have either a definite time of termination or provision written into the franchise specifying the procedure whereby it might be terminated as a result of the desire by one

or both parties. The term lengths of franchises with definite termination dates vary widely. For convenience, they have usually been classified as short-term if the duration is for twenty years or less. Those running longer than twenty years are considered long-term franchises.

There are factors favoring both types. As a general statement, municipalities favor franchises of relatively short duration. That does not necessarily mean that they desire the terms to be as short as five or ten years, but they often object to franchises of fifty to one hundred years. The primary reason advanced for favoring short-term franchises is that conditions change so much over a period of several decades that it is impossible to have a franchise flexible enough to meet the needs of the community under changing conditions. In order to make necessary changes, city governments often prefer to have franchises expire within a few years so that changes can be made through renewing the franchises.

UTILITY companies, on the other hand, usually prefer long-term franchises. Their point of view is that franchises of long duration enable them to make long-range plans that cannot be made unless there is assurance of being able to continue operations under conditions which are also known. For example, tax increases and various possible restrictions or conditions of service that might be specified in a new franchise could seriously alter costs of providing the service by the company lacking corresponding increases in revenue. There have been allegations that companies have been reluctant to invest in additional plant facilities when needed in the immediate years prior to ex-

⁵ *Ibid.*, p. 172.



Franchise Bargaining

"APPARENTLY, there is no definite procedure which might be followed at the expiration of a franchise when a utility and the municipality are unable to agree on a new franchise. If the city is able to acquire ownership of the utility property and operate it, the bargaining position of the city is relatively strong. Also, if it is feasible to offer a franchise to another company to provide the service, the bargaining position is strong. If neither of these conditions exists, utility companies can rarely be forced to agree to terms in a new franchise not willingly accepted by the company."

piration of franchises. If this is true, it is a serious matter to have this condition arising too often. Consequently, the long-term franchise has a distinct advantage in this respect.

THE effectiveness of a city government in making desired adjustments in utility franchises seems to be greatly dependent upon the ability of the city to purchase the property of the utility and to operate it. If the city is unable to assume ownership and to operate the utility, its bargaining power with the company is much less than when it is able to do so. One public utility economist has stated that the chief reason for termination of a franchise is to "enable the city to take over the properties and establish municipal operation." He stated further that a city "should keep unhampered the possible future decision to displace private with

public ownership and operation."⁶ Other writers have also stressed the importance of the ability of the city government to acquire ownership and to operate the utility.

To a considerable degree, most municipalities are in no position to purchase or operate several of the utilities. Municipal water systems are more likely to be taken over by the cities than are electric power, natural gas, or telephone services. Water systems usually operate as single units in each metropolitan area. The other utilities usually operate as systems serving areas larger than most of the larger metropolitan centers and much larger than the areas of most towns. Therefore, the possibility of municipalities operating telephone and electric power services is very slight. Consequently, the city governments are unable to use that possibility as a threat against

⁶ John Bauer, *op. cit.*, p. 10.

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one of the utilities at the expiration of the franchises.

THERE is a certain degree of possibility of issuing a new franchise to another private company when the old one has expired. That, however, is a very drastic step, and it is not often as feasible as it might seem. If a telephone, electric, or natural gas company serves all of the territory surrounding the municipality in which the franchise has expired, it is not practicable for a new firm to come into the city and begin operations without considerable interruption of the service. For example, if one of these companies has offices and other necessary operating facilities located within the city boundaries but serves an area beyond these boundaries, it is extremely doubtful that a franchise will be awarded a new firm. Therefore, renewing a franchise is often not an effective means of making adjustments favorable to the municipality and strongly opposed by the company.

If a franchise has expired and the municipal government has not forced the company to remove its property from the city streets, the city cannot at some later time force the company out. This has been determined by a case in Missouri in which the franchise of an electric company had expired. The city made no attempt to force the company out for nine years. During the nine-year period the utility continued to operate and made additional expenditures toward improving the plant property within the city. Furthermore, taxes were paid annually and accepted by the city. At the end of the nine-year period, the city passed an ordinance directing the company to vacate; and when the utility failed to comply with

the ordinance, action was initiated in court to force the ouster. The court, however, held that the city was guilty of laches, especially in having accepted the taxes, and dismissed the proceedings.⁷

APPARENTLY, a company cannot be forced to provide service against its will after a franchise has expired. There was a case in Kentucky in which the franchise of a natural gas company expired in 1929 after having been in force for twenty years. The company notified the city that it would discontinue its service when the franchise expired. The city filed suit to prevent discontinuance of service, contending that the company had its equipment installed within the city and there was no other means of having the service provided.

The court decision stated that the grant and acceptance of a franchise create only a contract, the obligations of which are binding on both parties.

Furthermore, a contract expires according to its terms. Therefore, when a franchise expires, no contractual relationship exists between the parties. It seems to be universally held that, when a franchise contract terminates, the mutual rights and liabilities are at an end. The property used by the utility continues to be its property, and the company has the right to remove its property from the city streets. Should the company fail to exercise this right, it can be compelled to do so. However, the courts have held that reasonable notice must be given by the company before it removes its property and by the city before demanding that the company remove its property, and both parties must be willing

⁷ *Cases on Public Utility Regulation*, by Francis X. Welch, Public Utilities Reports, Inc. Washington, D. C. 1946, p. 151.

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to await full adjudication of the rights of each side.

A CITY cannot force a utility company to enter into a franchise contract which it thinks is unreasonable or unfavorable. The fact that a utility is selling a service or commodity which is a great public convenience does not make the company different from parties competent to enter into other kinds of contracts. "The courts do not have the power of coercion, any more than they have the power to arbitrarily compel the city to enter into a contract concerning which it may exercise its own will and discretion."⁸ State utility commissions do not have the authority to force a city or a company to enter into a franchise contract against its will, nor can it force continuance of service after a franchise has expired. Forced continuation of service after expiration of the franchise would be writing into the contract an obligation which the company did not assume by originally accepting the franchise and would violate the provisions of the United States Constitution relating to impairment of a contract.⁹

⁸ *Cases and Authorities on Public Utilities*, by G. H. Robinson, Callaghan & Company, Chicago, Illinois, 1935, p. 619.

⁹ *Ibid.*, p. 618-620.

In summary, a city cannot compel a company to continue its service after a franchise has expired. State commissions have no jurisdiction in the matter, and the company has legal right to withdraw its service after the franchise has expired. However, a reasonable time is expected before either the city or the company takes drastic action which would interrupt the service of a utility and bring great inconvenience and possible hardship to the public. This is no assurance that service will not be interrupted, but it will enable the public to make some preparation for the inconvenience.

The Case in Morgantown, West Virginia

THE recent case in the city of Morgantown, West Virginia, in which the franchise of the Chesapeake & Potomac Telephone Company of West Virginia expired on June 3, 1956, is the most recent illustration of conditions existing when a municipal government and a utility do not agree on a new franchise. The city granted a franchise to the Central District Telephone Company on June 1, 1891. On June 3, 1916, the franchise was extended for forty years and was later transferred to the Chesapeake & Potomac Telephone Company when it acquired the telephone



"DURING the period prior to state commission regulation of utility rates and services, holders of certain franchises received extremely high profits, although such cases were very likely fewer than were thought by the general public. None the less, various franchise taxes were collected to recover some of the excessive profits and to tax intangible utility values that had escaped the general property tax. These taxes, commonly known as franchise taxes, include capital stock taxes, flat sum payments, physical unit taxes, gross earnings taxes, and net income taxes."

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property in Morgantown. The 40-year franchise expired June 3, 1956. During negotiations for a new franchise, the city and the company disagreed over two major points, the duration of the new franchise and the taxes to be paid by the company to the city.

The city proposed a 20-year franchise and a tax or franchise fee of 4 per cent of the gross revenue received by the company from all sources from within the city; however, the amount of the tax was later reduced. Since the electric power and natural gas companies in Morgantown were paying similar taxes, the city maintained that the proposed telephone tax was reasonable.

THE company proposed a 50-year franchise, a privilege tax of about \$123 a year, and 14 free telephones for various city offices, plus certain other limited services. The basic disagreement was, however, over the duration of the franchise and the tax to be paid by the company. The city official contended that the tax is reasonable in view of the fact that the electric and gas companies are paying similar taxes as specified in their franchises and that the tax is not an unreasonably large contribution by the company toward the general expenses of the city government. The company, however, took the position that the tax would be discriminatory, since such a tax would have to be paid from the general revenue of the company with only the people living in Morgantown receiving any benefit from the tax. There is no question that such a tax can be considered as an expense in the determination of the rate of return of the company. Therefore, the company could use such a tax as a need for in-

creased rates for all of the telephone users served by this company. This would mean that all of the company's customers would be paying the tax but only the residents of Morgantown would benefit, and the company contended that it would be discriminating against all telephone users not residing in the city.

There was also disagreement over the annual sum that the tax would amount to. However, the basic disagreement did not seem to be over the size of the tax but was over whether such a tax would be fair to all customers of the company. For example, it is doubtful whether the company would have agreed to the same tax at a smaller rate, such as 2 or 3 per cent of the annual revenue instead of 4 per cent. To agree to a small tax would be an admission that this type of tax is a reasonable charge by a municipality for the privilege of providing the services specified in the franchise. The position of the company was firmly opposed to the tax on principle as well as on the amount.

SINCE the city and the company have been unable to agree on a new franchise, telephone service has been provided without a franchise. The contention of the company has been that it continues to have the duty of providing adequate service in the interim between the old and presumably a new franchise to be signed at a later date. The city, on the other hand, contended that since there is no franchise agreement, the company has no such right and must obtain a special permit for work on the telephone property in the same manner as a nonfranchised firm must do. There were instances in which telephone employees were arrested when climbing poles in routine maintenance jobs. The

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city also contended that the company must pay the tax during the interim between franchises, since no franchise existed; and, therefore, the city has the authority to levy taxes that are within the general taxing powers of cities in West Virginia.

The company petitioned the circuit court of Monongalia county (the county in which Morgantown is located) for a declaratory judgment on the rights of the company to continue service and the right of the city to levy and collect the tax.

Request to Pass on the Tax

WHILE the litigation was pending in the court, the telephone company requested authority from the public service commission of West Virginia to pass on to telephone subscribers certain taxes imposed by municipalities on the company. It was disclosed during the hearing that the city of Huntington, West Virginia, and the city of Martinsburg, West Virginia, had been collecting similar taxes from the company. The approximate annual amount of the Huntington tax was \$46,590; that of Martinsburg was \$1,150. The amount of the Morgantown tax was considerably more than the Martinsburg tax and some estimates were above the amount of the Huntington tax. However, the amount of the tax did not seem to be a matter under consideration before the commission.

The commission in its decision of October 7, 1957, approved the request of the company as being just and reasonable.¹⁰ In making the decision the commission gave first consideration to the fact that it is just that those subscribers of telephone service who benefit from the collection of

certain taxes be required to furnish the revenue from which the taxes are paid. The commission stated, however, that this decision has no effect on the authority of a municipality to impose a tax. It applies only to whether a tax is to be paid from revenue collected from utility customers within the city or whether it is to be borne by customers of the entire company. It stated that the commission "can neither grant authority to tax nor limit the authority to tax."

ANOTHER factor influencing the decision was the impression that to permit taxes to be paid to one political subdivision when revenue to pay the tax is provided by all of the customers of the company is discriminatory. The decision of the commission is that those who benefit from the tax should pay the tax. To require the company to collect sufficient revenue from all of its subscribers in the state in order to pay charges to one political subdivision is discriminating against customers living outside the political subdivision. In order to avoid this discrimination, charges collected from customers within the municipality collecting a special tax should be increased enough to yield the revenue to pay the tax.

This decision conforms with similar decisions by commissions and courts in other states. Such authority to pay taxes by increased rates within the political subdivision collecting the tax is usually limited to taxes charged to public utilities that are not charged to nonutility properties and business transactions. Those taxes paid by nonutility as well as utility firms are usually paid from revenues collected throughout the rate-making unit. Likewise, the decision does not involve the tax

¹⁰ Re Chesapeake & P. Teleph. Co. (W Va 1957) 20 PUR3d 343.

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authority of a municipality. It applies only to who pays the special taxes charged a utility.

ON January 9, 1958, the circuit court ruled that the city cannot collect the special tax on the telephone company.¹¹ This decision enables the company to continue its operations within the city without paying special charges for the use of city property. The court said that no statute gives the city the power to levy such a tax against the company. Attorneys for the city announced that they would appeal the decision to the state supreme court.¹²

The decisions of the public service commission and of the circuit court appear to have placed the city in a weak bargaining position. Because of the commission decision, any special tax can be charged to customers residing within the governmental unit levying the tax. Because of the court decision, the city is not allowed to charge a special tax on a utility that is not collected from other businesses that do not have franchises. Therefore, the company can continue providing the serv-

ice without paying the tax in the interim between the expiration of the old franchise and presumably the signing of a new one.

APPARENTLY, there is no definite procedure which might be followed at the expiration of a franchise when a utility and the municipality are unable to agree on a new franchise. If the city is able to acquire ownership of the utility property and operate it, the bargaining position of the city is relatively strong. Also, if it is feasible to offer a franchise to another company to provide the service, the bargaining position is strong. If neither of these conditions exists, utility companies can rarely be forced to agree to terms in a new franchise not willingly accepted by the company. Consequently, the bargaining position of a city in obtaining more favorable terms of a new franchise when the old one expires is in direct proportion to the ability of the city to acquire ownership of the property or to find another company that can provide the service without long interruption of the service during the period required to make the change. Where the bargaining position of the city is weak, duration of the franchise has relatively little meaning except the reluctance of a company to go through frequent franchise negotiations.

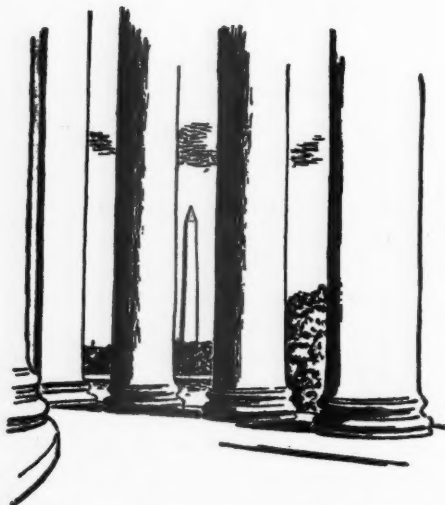
¹¹ Chesapeake & P. Teleph. Co. of West Virginia v. City of Morgantown, January 9, 1958.

¹² Morgantown Post, January 6, 1958, p. 1. See, also, "Progress of Regulation," PUBLIC UTILITIES FORTNIGHTLY, October 27, 1955, p. 755.

"GET a load of this, folks. The government has got out a pamphlet on 'Tools for Food Preparation and Dishwashing.' And it contains some information we'll bet you never thought of such as 'Dishpans should be large enough to hold the dishes but not too large for the sink.'"

"Well, what do you know? For years we had a dishpan that wouldn't hold the dinner plates and when we got a new one it was too big to fit in the sink. Now, thanks to this advice from Washington, we'll go right out and buy an in-between-size dishpan and see how that works. We never would have solved the problem ourselves."

—EDITORIAL STATEMENT,
Cleveland Plain Dealer.



Washington and the Utilities

Small Producers' Bill

SENATOR Russell B. Long and three co-sponsors recently introduced legislation to exempt from federal regulation smaller independent producers of natural gas. The bill, much less sweeping than the controversial natural gas bill now bogged down in the House, would apply only to producers who sell into interstate commerce less than two billion cubic feet of gas annually. The Louisiana Democrat said the House bill is as "dead as a doornail." He appealed to the bigger gas producers to join in the effort to pass his measure. The measure was cosponsored by Senators Joseph S. Clark, Jr. (Democrat, Pennsylvania), Estes Kefauver (Democrat, Tennessee), and Ralph Yarborough (Democrat, Texas). The House bill would sharply relax federal controls over producer prices on natural gas.

Long told the Senate his measure was aimed at helping the truly independent smaller producers, who make up 90 per cent of the producers but account for only 10 per cent of the production of natural gas. The Louisiana Senator said he would favor the stalled House bill but "I am a realist." He said "Since the day that the

Republican National Committeeman from Texas, Jack Porter, sent out requests for contributions to a fund-raising dinner in Houston for the Republican party, the Harris-O'Hara (House) Bill has been dead as a doornail, in so far as this Congress is concerned." Long said his measure is identical to one offered two years ago by Senator Paul H. Douglas (Democrat, Illinois) as a substitute for a then pending gas bill.

THE Louisiana Senator said the delay in rate cases on natural gas before the Federal Power Commission has become so great as to be "particularly distressing" to smaller producers. He told the Senate the smaller independents have little effect on the price at which gas is sold. Long said he knew of no opposition to the proposal from gas-consuming areas, which fought the bill vetoed by Eisenhower last year. "I am satisfied that this measure will pass and become law unless the giant corporations of the oil and gas business see fit to vigorously oppose it," Long said. "It is extremely inappropriate that they should do so."

Long said he hoped they would realize it would be in their "long-range inter-

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est to have this legislation enacted." The Louisiana Democrat said, "I urge them not to put themselves in the position of being a dog in the manger and thereby preventing the relief to which the small producers are unquestionably entitled." Although he still favors a broader bill, Long said, "The relief which is so sorely needed by the small independents should be made available now."

Long's bill so far has produced little reaction among lawmakers or within the gas industry. While there are indications that Congressmen from gas-consuming states would not oppose the measure, proponents of the Harris-O'Hara Bill are not generally enthusiastic. Many lawmakers would object on principle to the regulation of part of an industry, grounded solely on the basis of size. Senator Monroney (Democrat, Oklahoma), a supporter of the Harris-O'Hara Bill to ease controls over all producers, so indicated in commenting on the Long Bill. He said he believed the entire question has no hope for success at this session of Congress.

The bill to exempt independent gas producers from the full control of the FPC was officially buried for the session when one of the sponsors publicly conceded that it had no chance and that he would make no further effort to have it considered. Representative O'Hara (Republican, Minnesota), cosponsor of legislation to ease federal controls, said that House Speaker Sam Rayburn (Democrat, Texas) will not even call it up for a House vote.

THE failure of the gas producers' bill to make headway has not helped the chances of other efforts to correct the Natural Gas Act with reference to the so-called Memphis decision. Under this decision by the circuit court of appeals for the

District of Columbia (*Memphis Light, Gas & Water Division v. Federal Power Commission*, 21 PUR3d 209), pipeline companies may no longer file rate increases under § 4 of the Natural Gas Act without securing, in advance, agreement from all customers to the specific amounts of increases proposed.

The U. S. Supreme Court's refusal to hasten a review of this decision, so as to obtain a final ruling before the summer recess of the court in early June, will also have a delaying effect on any "anti-Memphis" legislation. So far, no Congressman has been found to sponsor correction of the rate-making provisions of the act, which are now admittedly in a very uncertain if not unsatisfactory condition. The prevailing tendency in Congress, however, is to let the pipeline companies put up with the uncertainty until the highest court has the final say on whether the Memphis decision should be upheld, changed, or reversed. If it is upheld, the court will probably clarify the proper construction to be placed on the rate-making provisions (§§ 4 and 5) of the Natural Gas Act. If the decision is reversed, of course, the pipeline companies can revert to previous practice and legislative relief will not be necessary. But nothing definite will be known until next fall.

Recession Steps

THE Treasury's purse strings will be loosened in an effort to speed job-producing work on \$2,255,000,000 worth of public housing and rural electrification projects. The total construction which the administration is trying to speed up includes: \$75 million for sewer and water projects and similar public facilities; \$300 million for college housing; \$1 billion for slum clearance and urban renewal; \$140 million for public housing; and \$740 mil-

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lion for rural electrification. The \$740 million recommended for the Rural Electrification Administration is money already available in the Treasury but not yet drawn on by co-operatives or other borrowers.

This means that the money already has been authorized and the loans approved by REA. The breakdown is \$580 million for rural electric and \$160 million for rural telephone loans.

The administration also announced its own program for antirecession public works construction last month in the wake of Democratic-sponsored resolutions calling for an acceleration of federal spending activities. President Eisenhower requested an extra \$171,450,000 to finance new construction, including \$125,250,000 for rivers and harbors and flood-control work of the Army Corps of Engineers. This latter amount is actually a restoration of funds for already authorized public works. No new projects are involved. The President's action simply revokes the slowdown imposed on public works spending last year by the Budget Bureau.

AN accelerated reclamation program has also been recommended by the President as an antirecession measure. The program calls for an increase of \$70,823,000 in the budget request for fiscal 1959, including \$45,822,000 for expediting construction now under way. This would increase the construction budget for the USBR to \$232,685,000. The added funds will permit expedited construction on the Trinity river (California) project and the Glen Canyon dam in Arizona. The revised program also contemplates a start on two other dams in the Colorado river storage project—Flaming Gorge dam in Utah and Navajo dam in New Mexico. Efforts of some of the Democratic Senators to make a quick start on a telephone and railroad

excise tax cut were slowed down last month, not so much by opposition to the plan, but by a more widespread sentiment against any hasty piecemeal approach toward recession cures.

Highway Relocation

A BILL to speed up construction of federal highways has been favorably reported to the Senate Public Works Committee. Included in the bill (S 3414) is a provision modifying the present law regarding the reimbursement of utilities for the cost of relocation of facilities. The bill would limit reimbursement from federal funds to 70 per cent of the cost a state is required to pay to utilities under state law.

As such, the measure is a compromise between the present law, which would authorize reimbursement up to 90 per cent on the interstate system, and the Case Bill (S 3150), providing for a 50 per cent limitation on federal reimbursement. Under the legislation reported last month, only those states whose laws require reimbursement for relocation costs could use any federal funds for the purpose. States having no such laws, or those whose laws merely allude to the Federal-Aid Highway Act of 1956, might not be permitted to use federal funds for reimbursement purposes.

Spokesmen for utility industries were fearful there may be a "sleeping" in the compromise draft of the bill reported to the Senate.

If the words "required by state law" definitely prevented any federal contribution for reimbursement of utilities in cases of highway expenses and unless state law definitely imposes an obligation on the state to make such a contribution, the effect could be quite adverse to the interest of utilities.

WASHINGTON AND THE UTILITIES

Fast Write-off Report

SENATOR Kefauver's Senate Antimonopoly Subcommittee has released its report on its investigation of the rapid tax amortization program, as applied to privately owned utilities. This was the investigation which took place last summer, but the report was not given out until mid-March. The majority report, which was signed only by Subcommittee Chairman Kefauver (Democrat, Tennessee), concludes that "consumers have fared badly" as a result of an FPC ruling that the objective of accelerated amortization was not primarily to produce lower utility rates. The report also states that the benefits were granted at "enormous cost to the government," and that the legality of fast tax amortization for utilities was "questionable."

Senators Dirksen (Republican, Illinois) and Wiley (Republican, Wisconsin) dissented. Dirksen called the majority report "unobjective, unfair, and quite careless of the facts." He said the report was "a fantastic and transparent effort to put the tarred stick on American industry" and an effort "to develop a spurious political issue" by charging the administration with favoritism and with encouraging monopoly. He denied that the subcommittee had produced any evidence of improper relations, as charged by the majority, between Ebasco Services, Incorporated and federal agencies in connection with a tax certificate awarded to the Idaho Power Company. Senator Wiley, in a separate statement, expressed doubt that the subcommittee had any jurisdiction over rapid tax amortization problems "in the electric utility industry, or any other industry."

THE majority report is not expected to have any serious legislative effects.

The issues it attempts to raise are now moot, for the most part. The erratic progress and timing of the investigation and report suggest more striving for political effect than a serious effort to recommend legislation. In fact, the only change or reform the majority could have recommended is one which already has been accomplished. Since the investigation the tax amortization program has been drastically restricted to defense production facilities and the entire program is scheduled to end December 31, 1959.

Miscellaneous

PRESIDENT Eisenhower recently nominated John S. Cross to succeed Richard A. Mack as a member of the Federal Communications Commission. Cross, a Democrat from Arkansas, will serve out the remainder of Mack's term, which expires July 1, 1962. He has been with the State Department since 1947 and is now assistant chief of the department's telecommunications division. Representative Harris, chairman of the House Subcommittee on Legislative Oversight, whose investigation of FCC affairs forced Mack's resignation, said Cross was recommended for the FCC post three years ago by the Arkansas congressional delegation.

William S. Rummens of Seattle, Washington, has been named Assistant REA Administrator. Rummens will be in immediate charge of REA's rural telephone program, succeeding J. K. O'Shaughnessy, who retired last September. Rummens started his telephone engineering career with Pacific Telephone & Telegraph Company and, since 1948, has been senior telephone engineer on the staff of the Washington Public Service Commission.



Press Group Ad Restrictions

THE Louisiana Press Association took sharp issue last month with the attitude of the state public service commission toward utility advertising. Meeting in New Orleans for its seventy-eighth annual convention, the association condemned efforts on the part of regulatory commissions to curtail paid advertisements by public utility companies in defense of their own policies in rate cases.

The matter was brought to a head by criticism leveled at Southern Bell Telephone & Telegraph Company in connection with a current rate dispute between the company and the state commission. The two have been at odds ever since the commission, in acting on the company's application for a rate increase, reduced its rates instead. After exhausting its legal remedies, the company decided to take its case to the public through paid advertisements. Commission Chairman Nat B. Knight was quoted in the New Orleans *Times-Picayune* in late February as having said that if the company persisted in its advertising campaign for higher rates he would ask the commission to curtail the company's activities along this line. Knight also said that the commission did not regard expenses incurred by the company in its ad campaign as legitimate operating expenditures.

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Telephone and Telegraph

In a vigorous resolution, the Louisiana Press Association came to the company's defense. The resolution pointed to "a growing tendency on the part of government officials and regulatory bodies to deny to the public its basic right of full information—to restrict and suppress open discussion, proper analysis, and critical examination in the field of public affairs . . ." Such restrictions, said the resolution, "violate the cardinal principle of American freedom of the press by an unwarranted curb on the right of business and individuals to use advertising media for the presentation of information of vital public interest . . ."

THE association's resolution specifically cited as a case in point the state commission's attitude with respect to Southern Bell ads. To curtail such ads, the resolution continued, "would represent an infringement on the right of this utility company, or any utility company, to make a proper, timely, and legitimate presentation of matters in the public interest through the medium of newspapers or other recognized means of communication . . ." The association officially protested such action and urged all regulatory bodies to desist and refrain from any rulings which will curb or restrict the right of any business under its jurisdiction

TELEPHONE AND TELEGRAPH

from use of the medium of advertising to inform the public on matters of public interest.

In reply to Commissioner Knight's quoted remarks, H. G. Bartee, Southern Bell's vice president and general manager, stated:

If we understand correctly the position stated by the commission chairman, we are amazed that the commission would even consider imposing arbitrary restrictions on the company's freedom of speech. Southern Bell has always made an effort to keep its employees and the public informed regarding company practices, policies, or problems, in the firm belief they have a right to know.

We will continue to defend vigorously our right, and in fact our obligation, to do this, particularly in a matter such as this, when the progress of the state is so vitally affected.

Southern Bell in Louisiana has the lowest earnings rate of any major utility in Louisiana and the lowest telephone earnings of any state in the entire Bell system.

We have, through our current advertising and information program, attempted only to give the facts of our low earnings position. It's in the commission's interest as well as the company's that the people of Louisiana understand these facts, and we cannot believe the commission would deprive them of proper explanation by any attempt to impose what would clearly be some sort of gag rule.

GENERALLY, the company's ads purport to show that prevailing rates do not provide a sufficient return to warrant continued expansion of plant construction necessary for adequate service. The company's rate of return in Louisiana is 4.24

per cent. In the original rate proceedings, the commission assigned a 45 per cent debt ratio as "more normal" than the company's actual debt ratio, which is far below that figure, and used this as a basis for reducing the company's rates. The commission contends that Southern Bell's low debt ratio is designed to profit its parent company, American Telephone and Telegraph Company, at the expense of the Louisiana subscriber.

FCC Reorganization Proposed

THE present investigation of the Federal Communications Commission has brought forth a variety of proposals designed to tighten commission procedures and to shield it from undue influence in the making of decisions. Perhaps the most dramatic suggestion comes from Clarence C. Dill, former Democratic Senator from Washington, who once headed the Senate Interstate Commerce Committee. The present chairman of the committee, Senator Magnuson (Democrat, Washington), announced last month that he was prepared to consider draft legislation suggested by Dill which would abolish the present FCC.

Under Dill's proposal, the FCC would be replaced by a Federal Communications Administration under a single administrator appointed by the President for a term of four years, subject to Senate confirmation. All of the powers of the present FCC would be transferred to the administrator, with the exception of the rehearing provisions of §405 of the Communications Act. The powers included in §405 would be placed in a new and special Communications Court of Appeals, composed of three federal judges.

None of the present members of the FCC would be eligible to serve either as administrator or on the special court. All

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records, property, personnel (except commissioners), appropriations, and allocations of the commission would be the responsibility of the new administration. Decisions made by the FCC would remain in effect after the new bill has become law and all appeals of prior decisions would be handled by the special court.

MOST observers give Dill's proposals small chance of success. Although present FCC procedures could no doubt be improved, none of the revelations which have been made before the House Subcommittee on Legislative Oversight indicate that faulty procedure is at the heart of the problem. Many legislators would be reluctant to place as much power as Dill's proposal implies in a single administrator. Furthermore, the political overtones of the proposal would almost certainly lead the administration to resist such legislation and the President to veto it if it should be passed by Congress.

A more likely result of the investigation would be legislation along the lines recently suggested by Representative Harris (Democrat, Arkansas), who is chairman of the investigating House group. Harris' subcommittee is considering a move to strip the President of his present power to designate the chairman of the FCC. It has been suggested that the chairmanship should rotate from year to year or for the head of the FCC to be elected by its membership. This suggestion, however, appears to be aimed solely at reducing alleged White House influence and to make the FCC more independent of or less sensitive to pressures from this quarter. In this connection, it is interesting to note that the current investigation has turned up far more evidence of pressure from Congress and private individuals, rather than the White House.

MOST of the proposals to reorganize the FCC have come as a result of exposures before the House subcommittee in regard to the award of a Miami television channel to National Airlines. The FCC, however, has determined to defend its original decision in court. The commission has asked the U. S. circuit court for the District of Columbia to return the case to the FCC for reconsideration. But, in doing so, it told the court in a separate brief that the award of the disputed channel was based on "substantial" and "uncontroverted" evidence. The brief was designed to state the FCC's position on the Miami award in case the court turns down the reconsideration plea.

The federal court was expected to accede to the commission's request that it be permitted to reconsider the case. House subcommittee investigators, however, warned the FCC members that this would make no difference on further probing of the case on Capitol Hill, simply because the remanded case would again become a "pending matter." In the end, however, the FCC is generally believed likely to reaffirm its original decision in the Miami case if it is remanded for further consideration. The main rival applicant in the Miami case has not been shown to be any better qualified or to have proceeded any more regularly than the successful applicant in the original FCC proceedings.

Recent Rate Case

THE Idaho Public Utilities Commission has granted Mountain States Telephone & Telegraph Company telephone rate increases to yield an extra \$1,239,000 a year in gross revenue. This figure fell only \$188,000 short of the amount requested by the company. The commission allowed a 6.35 per cent rate of return.

Financial News and Comment

By OWEN ELY



Federal Controls Should Prevent This Recession From Becoming Another 1929

IN the twelve months ended February 28th the FRB Index of Industrial Production dropped from 146 to 130, a decline of 11 per cent, and a further dip in March seemed likely. The index of auto production decreased 31 per cent but other consumer durables were down only 7 per cent. The two extremes among the individual indexes were the production of primary metals, down one-third, and the index of electric output which was up 4 per cent. Reflecting the more stable indexes, supported by well-maintained personal income, department store sales declined an estimated 7 per cent and the manufacture of nondurable goods 5 per cent.

It now seems apparent that the present "recession" will be greater and longer than those of 1949 and 1954. In the record depression of August, 1929, to July, 1932, the FRB index dropped more than one-half (from 114 to 53). By May, 1937, it had risen to 121, but in the next twelve months dropped to 81, a dip of nearly one-third. In 1953-54 the index declined from 137 to 123 in a twelve months' period, a dip of 10 per cent.

Economists, politicians, and statesmen are especially concerned about the present decline because it might correspond to the famous big depressions which have occurred about a decade after several big wars. In the present instance we apparently had a "reprieve" because of the Korean War, and in recent years the huge armament program (which accounts for roughly half of government expenditures and one-tenth of gross national product) has been a stimulating factor, postponing by a few years the accumulation of a glut of consumers' durable goods, large inventories, excessive debts, and other maladjustments which usually trigger a real depression.

Is a major depression similar to 1929-32 inevitable, either now or perhaps in the early 1960's? In 1929 the Federal Reserve System was considered a bulwark to protect the country from a banking disaster,

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but was not flexible enough for this purpose. At the present time we rely on numerous "built-in safeguards" — greater Federal Reserve powers, more orderly liquidation of mortgages and other debts, unemployment compensation, farm price supports, etc.

One thing is certain—the federal government now has much more control over business than in 1929-32. In 1930 federal purchases of goods and services (\$1.4 billion) were only about 1.5 per cent of the gross national product. There was a modest attempt at pump priming by Mr. Hoover with the RFC, etc., but in 1933 federal purchases had increased to only \$2 billion and this was more than offset by the decline in state and local expenditures from \$7.8 billion to \$6 billion—resulting in an overall cut of 13 per cent. Later, of course, the Roosevelt administration began to spend more liberally, and by 1940 the federal figure had risen to three times that of 1933, while in 1944 it reached \$90 billion or about 43 per cent of gross national product.

IN 1929, also, the government's control over personal income through income tax collections was far less than at present. Mr. Hoover's tax measure in November, 1929, saved the average taxpayer only about \$10 a year. In comparison, in 1953-54 there was a tax cut of \$7.5 billion. With no substantial controls over consumer net income and construction expenditures, as well as much political bickering over the limited defensive measures which were proposed, the 1929 debacle was

allowed to "snowball" for three years. Exact figures for the depression period are not available, but the blow to the national economy in the period 1930-33 may be indicated as shown in table below.

In 1956 (latest available figures) federal expenditures for goods and services were about 11 per cent of GNP contrasted with 1.5 per cent in 1930. The administration is making a belated start with "pump priming": Defense spending, slowed last year to avoid encroaching on the fixed federal debt limit, is again being speeded up, and it was announced recently that \$100 million defense contracts had been placed with the auto industry. Congress recently sent a bill to the White House to spend \$1.8 billion on housing, and the complicated federal mortgage machinery is being speeded up, with the hopes that 200,000 additional homes will be built this year. President Eisenhower has directed government officials to encourage faster development of expenditures for slum clearance, rural electrification, and other construction projects totaling about \$1.5 billion, of which the government would put up \$133 million in direct grants and about \$1.4 billion in loans. There has been considerable talk about a tax cut "across the board" but it looks now as though nothing definite will be done on this before May or June, if at all.

IT may be of interest to look at some of the basic conditions responsible for depressions. Debts appear to be the major factor. In the eighteenth and nineteenth centuries government debt perhaps played



	Billions		Per Cent
	1930	1933	Decline
Expended for Durable Goods	\$ 7.1	\$ 3.5	51
Expended for Nondurable Goods	34.0	22.2	35
Expended for Services	29.8	20.7	31
Invested in New Construction, Machinery, etc.	10.7	3.0	72
Gross National Product	91.1	56.0	39

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CALENDAR OF UTILITY OFFERINGS FOR SECOND QUARTER*

<i>Date of Bidding Or Sale</i>	<i>Approx. Amount (Millions)</i>		<i>Method Of Offering</i>	<i>Moody Rating</i>
<i>Bonds</i>				
4/1	\$10	Idaho Power Co. 1st Mtg. Bonds 1988	C	Aa
4/1	10	Idaho Power Co. S. F. Debs. 1983	C	A
4/9	15	Duquesne Light Co. 1st Mtg. Bonds 1988	C	Aaa
4/15	50	Commonwealth Edison 1st Mtg. Bonds 1988	C	Aaa
4/16	15	Mississippi Power & Light Bonds	C	A
4/16	15	Missouri Power & Light 1st Mtg. Bonds 1988	C	A
4/22	50	Consolidated Edison 1st Ref. Mtg. Bonds 1988 ...	C	Aa
4/23	3	Sierra Pacific Power Bonds	C	Baa
4/23	10	Atlantic City Electric 1st Mtg. Bonds 1988	C	Aa
4/23	15	Southern Counties Gas Bonds	C	A
4/28	20	Puget Sound P. & L. Bonds	C-R	Baa
4/28	10	Puget Sound P. & L. Bonds	C	Baa
4/29	40	Philadelphia Electric Bonds		Aaa
5/6	8	New Jersey P. & L. Bonds	C	A
5/13	15	United Gas Improvement Bonds	C	A
5/14	20	Long Island Lighting Bonds	C	A
5/19	20	Gulf States Utilities Bonds	C	Aa
5/20	25	Illinois Power Bonds	C	Aa
5/21	22	Brooklyn Union Gas Bonds	C	A
5/27	25	Appalachian Power Bonds	C	A
5/	16	Public Service of Oklahoma Bonds	C	Aa
5/	20	New York State E. & G. Bonds	C	A
5/	18	Central Hudson G. & E. Bonds		—
5/	20	Potomac Electric Power Bonds	N	Aa
6/5	20	Columbia Gas System Bonds		A
6/10	25	Virginia E. & P. 1st & Ref. Mtge. Bonds	C	Aa
6/17	15	Oklahoma G. & E. Bonds	C	Aa
6/	8	Kansas G. & E. Bonds	C	A
6/	15	Delaware P. & L. Bonds	C-R	Aa
6/	10	Delaware P. & L. Bonds	C	Aa
	35	Natural Gas Pipeline of America 1st Mtg. Bonds ..	N	—
	20	Merrimack Essex Electric 1st Mtg. Bonds 1988 ..	C-R	A
—		Texas Power & Light 1st Mtg. Bonds		Aa
—		Texas Electric Service Bonds		Aa
16		Mountain Fuel Supply Bonds		A
45		Consolidated Nat. Gas Bonds		Aaa
8		Otter Tail Power 1st Mtg. Bonds		—
15		Toledo Edison Bonds		A
17		Tampa Electric Bonds		Aa
10		Kansas Power & Light Bonds		Aa
<i>Preferred Stock</i>				
4/23	5	Atlantic City Electric Preferred Stock	N	
5/	3	Wisconsin P. & L. Preferred Stock	N	
	15	Texas Eastern Transmission Preferred Stock	N	
	15	Public Service of Colorado Preferred Stock		

(Continued)

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<i>Date of Bidding Or Sale</i>	<i>Approx. Amount (Millions)</i>	<i>(Continued)</i>	<i>Method Of Offering</i>	<i>Moody Rating</i>
<i>Common Stock</i>				
4/2	21	General Telephone Corp. Common Stock	N	
4/15	16	New England Electric System Common Stock ...	S-C	
4/16	1	Sierra Pacific Power Common Stock	S	
4/23	4	Atlantic City Electric Common Stock	N	
5/19	9	Gulf States Utilities Common Stock	C	
5/	6	Wisconsin P. & L. Common Stock	S	
	6	Rochester G. & E. Common Stock	S-N	

*Excluding private offerings. C—Competitive. N—Negotiated. R—Refunding. S—Subscription. S-C—Subscription, with competitive stand-by underwriting. S-N—Subscription, with negotiated stand-by underwriting.



a greater rôle than private debt, but in 1929 private debts were the major factor. The liquidation of a huge volume of debts, and the resulting readjustments in the distribution of wealth between debtors and creditors, was an unhappy process. First the squeeze was put on stock speculators through forced liquidation of margin accounts and bank loans, and the resulting decline in values (stock prices dropped almost 90 per cent) shook the whole banking structure and forced a drastic reorganization. Liquidation of city and farm mortgages was slower but none the less inexorable. Between 1929 and 1933 debts were readjusted as shown in the table below.

The 1937-38 depression resulted in comparatively slight reduction in debts, only about 2 or 3 per cent on an overall

basis; changes were mostly in corporate bank loans and in private nonfarm debts, which declined \$1.6 billion or about 9 per cent. In the postwar period there has been a steady increase in total debt, both private and public—uninterrupted by the minor recessions of 1949 and 1954. Overall debt for this country at the end of 1956 (1957 data are not yet all available) approximated \$803 billion, about three and three-quarters times as large as in 1929. However, if adjustment is made for changes in population and in the value of the dollar the increase drops to about 43 per cent. Moreover, gross national product has grown faster than total debt since 1929—297 per cent *versus* 276 per cent; and individual savings have increased 430 per cent—from \$47 billion to \$249 billion, not including investments in securities.

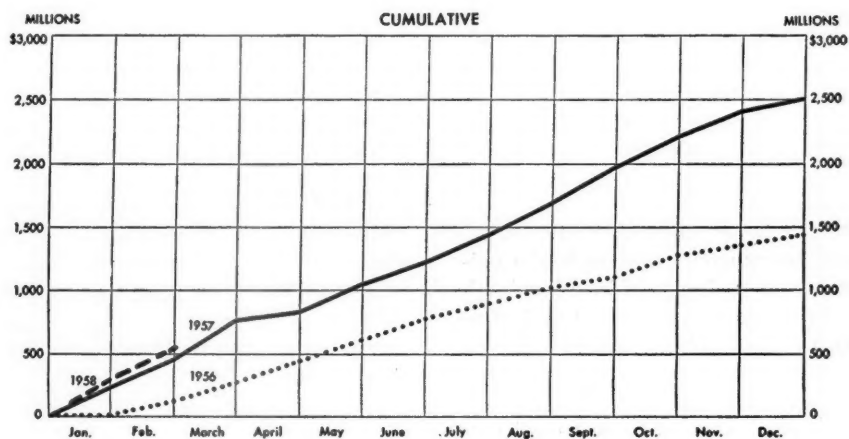


	<i>Billions</i>		<i>Per Cent Change</i>
	<i>1929</i>	<i>1933</i>	
Corporate Short-term	\$50.4	\$35.2	—30
Corporate Long-term	56.6	57.2	+ 1
Individual and Noncorporate—			
Mortgage Debt	40.8	34.0	—17
Nonmortgage Debt	31.5	16.6	—47
Federal	17.5	27.7	+58
State and Local	17.2	19.8	+12
Total	\$214.0	\$190.5	—11

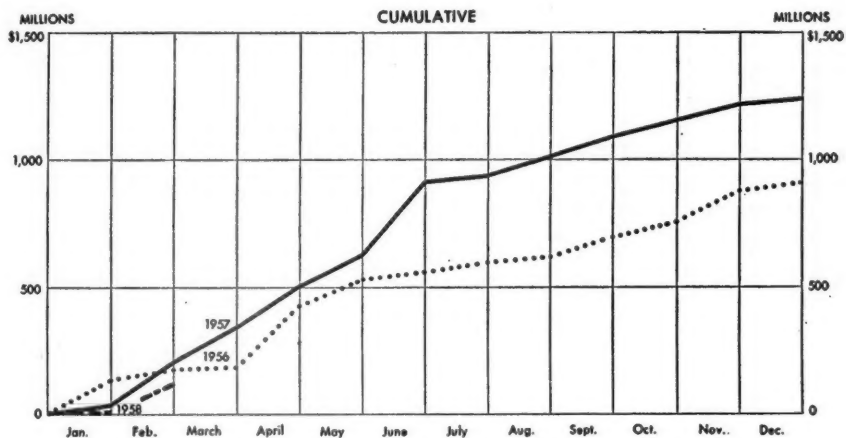
FINANCIAL NEWS AND COMMENT

PROGRESS OF NEW MONEY FINANCING

BY UTILITY COMPANIES RENDERING
PRINCIPALLY ELECTRIC SERVICE*



BY UTILITY COMPANIES RENDERING
PRINCIPALLY GAS SERVICE*



* Covers companies included in the calendar with assets over \$35,000,000.

Source, Irving Trust Company

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WHILE there is not too much comfort in the debt figures, the important point is that the character of the debt is changed. Private debt has increased only 130 per cent since 1929—more than accounted for by population gains and dollar inflation—and now consists largely of instalment and other consumer debt, with a negligible amount of security loans, etc. It is true that repossessions of cars are showing some increase, but certainly this is a minor factor compared with the holocaust of margin calls and bank failures in 1929-32.

Thus, the most vulnerable part of the economy today would seem to be the federal government itself, if inflation is allowed to increase and the federal debt to get out of hand. This is what happened, of course, in the earlier history of the Republic when federal debt became top-heavy and it became difficult to sell new government bond issues. But certainly there is no indication that we are approaching any such difficulties at this time. The government has made at least a start toward reducing its unwieldy short-term debt and it is to be hoped that this program will continue. The Federal Reserve is now a strong force against inflation, and hence any concessions made to "pump priming" should be only temporary.

It may be of interest to note how electric output has been affected in depressions. The weekly indices compiled by *The New York Times* furnish a statistical comparison. See table below.

The decline in electric kilowatt-hour output is usually less than the decline in general business because the residential, commercial, and miscellaneous components are less affected than the industrial; and the decline in revenues is less than that in kilowatt-hours because of industrial "demand charges," promotional residential rate structures, etc. There are further safeguards for net income, such as nonuse of obsolete plant, etc. Certainly in the present recession the electric utilities have been practically unscathed—a majority of companies expect an increase in share earnings in 1958. And according to the recent SEC forecast, public utilities will spend 4 per cent more on construction this year, while other corporations are cutting expenditures 17 per cent as compared with last year.

Nuclear Power Cost "Guesstimates"

LOUIS H. RODDIS, JR., deputy director of the AEC Division of Reactor Development, in a recent address before the National Industrial Conference Board, discussed nuclear power cost estimates. He remarked, "the area of power economics is very deep water for the uninitiated. . . . The usual offerings are in my opinion only 'guesstimates.'"

In estimating capital costs of nuclear plants, items of great importance are research and development. Safety requirements, which sometimes require additional land, special waste disposal features,

Depression Period	Weeks Ended
1929-32	7-29-29 to 8- 6-32
1937-38	8-14-37 to 4-23-38
1948-49	11-20-48 to 10- 8-49
1953-54	6-13-53 to 7-10-54
1957-58	1-19-57 to 3- 3-58

Per Cent Decline Combined Business Index	Elec. Output Index
-43%	-21%
-28	-17
-24	- 5
-11	+ 5
-14	+ 7

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etc., should not be overlooked. The cost of the initial fuel investment, and other special material such as heavy water, may or may not be included in capital costs and variations may easily account for differences of 100 per cent or more in quoted costs of construction.

Financing and amortization policies have an important effect on estimates of capital cost, and it is also customary for electric utilities to charge interest during construction to capital cost, but many nuclear power "guesstimates" overlook these items. Regarding depreciation, there are, of course, several different methods, a choice of which would produce a marked difference in overhead costs. Also, the estimated cost of obtaining construction funds, etc., may vary considerably. Considering all these factors, the cost of general overhead may vary from as little as 4 per cent to as much as 15 or 20 per cent. Mr. Roddis stated:

Even if comparable assumptions are made in comparing conventional power plants and nuclear power plants, there may be substantial differences in the end result since the balance between fixed and variable charges will be quite different in the two types of plants.

WITH regard to the operating costs of a nuclear power plant, any estimate requires that a series of assumptions be made affecting operating power level, load factor, fuel element life, maintenance costs, taxes, and insurance. One difficulty is that the operating power level of an atomic reactor cannot be accurately forecast when the plan is designed. For example, the EBWR plant at Argonne Laboratory near Chicago was designed for a thermal output of 20 megawatts and an electrical output of 5 megawatts, but has already operated at a thermal power level of 50 megawatts.

Another question is load factor. Atomic reactors have been operated reliably for hundreds of hours at nearly 100 per cent load factor, but it has become fashionable to assume 80 per cent as a typical load factor for a nuclear plant.

Regarding the fuel cycle, there are substantial differences in the estimated cost of producing and fabricating the fuel, and even wider variations in estimates as to how long a given element will last in a reactor. In Mr. Roddis' opinion, fuel cycle costs are now the biggest single uncertainty affecting estimates of nuclear power costs—the difference may be in a range from 10 to 100. Maintenance costs are also important and for some kinds of reactors may prove to be "completely dominant" in determining efficiency. Insurance and taxes are also uncertain factors, particularly the latter. Pricing policies for uranium and plutonium are important, as well as the cost of chemical reprocessing.

MR. RODDIS gave a detailed comparison of two cost estimates. Taking the same plant, with 100,000-kilowatt capacity and an estimated sales price of \$30 million, an optimist in one country estimated net cost of power at only two mills per kilowatt-hour, while a pessimist in another country estimated 31.6 mills. Some of the differences underlying these estimates were the following: The optimist estimated actual megawatt heat 50 per cent higher than the pessimist, and net thermal efficiency 20 per cent higher, resulting in an 80 per cent increase in net output. He estimated plant life at forty years compared with sixteen, and plant factor at 50 per cent more. Burn-up was five times higher and the PU credit two and one-half times as much. Also, he estimated the cost of core preparation and fabrication at only 40 per cent of the pessimist's figure. Plant cost was 25 per cent

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lower, and no allowance was made for interest during construction, charge for site, etc. The optimist assumed that money would cost only 3 per cent compared with the pessimist's assumption of 7 per cent; he included nothing for taxes and insurance, and his depreciation rate was only 2½ per cent per annum *versus* 6 per cent. Thus his fixed charge rate per annum was only 5.5 per cent contrasted with 20 per cent for the pessimist.

As the net result of these differing assumptions, estimated cost of generating one kilowatt-hour, in mills, varied as follows:

	Optimist	Pessimist
Fuel Costs		
Uranium Cost, Net	1.6	2.4
Fuel Fabrication	0.6	9.2
Chemical Reprocessing	0.1	1.2
Plutonium Credit	(2.0)	(1.4)
Net Fuel Cost	0.3	11.4
Other Operating Costs	0.5	1.8
Fuel Investment Charges	0.0	0.6
Fixed Charges	1.2	17.8
Net Cost	2.0	31.6

While Mr. Roddis' example appears to be quite an extreme case, his figures are interesting because they throw some light on the many factors involved in nuclear power costs.

Taking Advantage of Hidden Tax Benefits

A QUIRK in federal income tax regulations permits full salaries of utility officers to be deducted as income tax expense, even though part of the salaries have been assigned to construction work and capitalized, Willard F. Stanley (formerly vice president of Southwestern Public Service Company and now a financial consultant) pointed out in an article in the *Electrical World* for February 24th. Many utilities apparently assume that they can only use as an expense the amount representing the proportion of the time assigned to operations.

Federal court cases appear to indicate the company can deduct the entire salary for taxes, even though a portion is capitalized on the books. The effect is to increase net income in the year the salaries are paid and also obtain for the company an economic benefit in the form of the free use of the taxes on the amount of the capitalized salaries for a period equal to half the life expectancy of the property being constructed. Where the rate of expansion is high this would mean a sizable economic gain to the average utility.



DATA ON ELECTRIC UTILITY STOCKS

DATA ON ELECTRIC UTILITY STOCKS											
Annual Rev. (Mill.)		3/20/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% In- crease	Aver. Incr. In Sh. Earnings 1952-57†	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity	
\$284	S	American G. & E.	44	\$1.60	3.6%	\$2.19Ja	8%	9%	20.1	73%	33%
46	O	Arizona Pub. Serv.	28	1.12	4.0	1.85Se*	13	13	15.1	61	31
11	O	Arkansas-Mo. Power	19	1.00	5.3	1.30Se	—	10	14.6	77	31
32	S	Atlantic City Elec.	34	1.40	4.1	1.80De	9	10	18.9	78	28
142	S	Baltimore G. & E.	39	1.80	4.6	2.33De	—	6	16.7	77	46
7	O	Bangor Hydro-Elec.	32	1.90	5.9	2.21De	D18	4	14.5	86	36
6	O	Black Hills P. & L.	25	1.44	5.8	2.11Ja	D15	3	11.8	68	30
104	S	Boston Edison	52	2.80	5.4	3.12De	D10	—	16.7	90	47
24	A	Calif. Elec. Power	15	.76	5.1	.92De	D5	1	16.3	83	35
21	O	Calif. Oreg. Power	32	1.60	5.0	1.87N	D18	5	17.1	86	33
8	O	Calif. Pac. Util.	30	1.60	5.3	2.33De	—	6	12.9	69	30
67	S	Carolina P. & L.	30	1.32	4.4	1.90F	14	4	15.8	69	40
30	S	Cent. Hudson G. & E.	16	.80	5.0	1.11De	1	6	14.4	72	36
23	O	Cent. Ill. E. & G.	31	1.60	5.2	2.47Ja	6	11	12.6	65	36
37	S	Cent. Ill. Light	56	2.60	4.6	4.10De	6	9	13.7	63	38
53	S	Cent. Ill. P. S.	33	1.68	5.2	2.48De	8	13	13.3	68	40
15	O	Cent. Louisiana Elec.	36	1.60	4.4	2.16De	5	8	16.7	73	30

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38	O Cent. Maine Power	23	1.40	6.1	1.83F*	D3	5	12.6	76	34
128	S Cent. & South West	45	1.70	3.8	2.47Se	D5	15	18.2	69	35
12	O Cent. Vermont P. S.	17	1.00	5.9	1.04De*	D9	2	16.3	96	33
121	S Cincinnati G. & E.	30	1.50	5.0	2.01De	1	9	14.9	75	39
7	O Citizens Util. "B"	17	1.00	5.9	1.17Se	5	10	14.5	85	42
119	S Cleve. Elec. Illum.	38	1.60	4.2	2.64De	1	11	14.4	61	50
5	O Colo. Cent. Power	29	1.32	4.6	1.76De	D5	4	16.5	75	33
44	S Columbus & S. O. E.	35	1.60	4.6	2.57De	15	5	13.6	62	30
380	S Commonwealth Ed.	44	2.00	4.5	2.85De	4	5	15.4	70	40
13	A Community Pub. Ser.	28	1.30	4.6	1.95De	7	6	14.4	67	45
75	O Conn. Lt. & Pr.	19	1.00	5.3	1.21De*	D7	5	15.7	83	34
552	S Consol. Edison	49	2.40	4.9	3.44De*	7	6	14.2	70	38
221	S Consumers Power	50	2.40	4.8	3.31Ja	1	5	15.1	73	38
78	S Dayton P. & L.	48	2.40	5.0	3.15De	D17	2	15.2	76	38
49	S Delaware P. & L.	49	2.00	4.1	2.77De	11	12	17.7	72	33
251	S Detroit Edison	40	2.00	5.0	2.57F	5	11	15.6	78	44
136	A Duke Power	33	1.40	4.2	2.18De	15	15	15.1	64	47
99	S Duquesne Light	38	2.00	5.3	2.53De	4	4	15.0	79	34
32	O East. Util. Assoc.	33	2.20	6.7	2.20De	D2	0	15.0	100	34
2	O Edison Sault Elec.	16	.80	5.0	1.18De	10	24	13.6	68	33
14	O El Paso Elec.	23	1.00	4.3	1.42Ja	3	9	16.2	70	37
12	S Empire Dist. Elec.	21	1.20	5.7	1.49De	D6	2	14.1	80	39
52	S Florida Power Corp.	60	2.00	3.3	2.96De	5	13	20.3	68	37
131	S Florida P. & L.	62	1.40	2.3	2.98De	15	22	20.8	47	42
176	S General Pub. Util.	41	2.00	4.8	3.21De*	5	10	12.8	62	42
7	O Green Mt. Power	15	1.00	6.7	1.11De	D10	7	13.5	90	36
62	S Gulf States Util.	42	1.60	3.8	2.25Ja	1	11	18.7	71	34
49	A Hartford E. L.	59	3.00	5.1	4.33De	8	10	13.6	69	41
24	O Hawaiian Elec.	46	2.50	5.5	3.12De	—	12	14.8	80	36
87	S Houston L. & P.	55	1.60	2.9	2.75De	D2	11	20.0	58	46
28	S Idaho Power	37	1.50	4.1	2.31Ja	NC	12	16.0	65	36
87	S Illinois Power	31	1.50	4.8	1.98Ja	7	7	15.7	76	38
46	S Indianapolis P. & L.	33	1.50	4.5	2.09De	1	7	15.8	72	35
26	S Interstate Power	15	.80	5.3	1.01De	1	2	14.9	79	31
36	O Iowa Elec. L. & P.	29	1.50	5.2	2.08De	D8	5	13.9	72	38
41	S Iowa-Ill. G. & E.	35	1.80c	5.1	2.58De	7	3	13.6	70	38
39	S Iowa Power & Lt.	28	1.60	5.7	2.08De	2	4	13.5	77	30
34	O Iowa Pub. Service	16	.80	5.0	1.11De	1	8	14.4	72	35
14	O Iowa South. Util.	24	1.28	5.3	1.91Ja	5	5	12.6	67	40
61	S Kansas City P. & L.	42	2.00	4.8	2.95Ja	8	7	14.2	68	34
32	S Kansas G. & E.	31	1.40	4.5	2.36Ja	5	13	13.1	59	29
48	S Kansas Pr. & Lt.	27	1.30	4.8	2.05De	2	7	13.2	63	31
39	O Kentucky Util.	28	1.28	4.6	1.94De	D9	3	14.4	65	36
7	O Lake Superior D. P.	23	1.20	5.2	1.60Se	D5	5	14.4	75	38
110	S Long Island Ltg.	23	1.20	5.2	1.44De	D5	5	16.0	83	29
56	S Louisville G. & E.	30	1.20	4.0	1.83De	D3	3	16.4	66	41
9	O Madison G. & E.	47	1.80	3.8	4.28Se	NC	11	11.0	42	50
5	A Maine Pub. Service	18	1.12	6.2	1.38Ja	10	7	13.0	81	37
5	O Michigan G. & E.	48	1.60	6.3	4.04Se	D1	14	11.9	40	37
172	S Middle South Util.	41	1.80	4.4	2.41De	11	6	17.0	75	39
27	S Minnesota P. & L.	30	1.60	5.3	2.49De	19	10	12.0	64	36
3	O Miss. Valley P. S.	28	1.40	5.0	2.14Ja	2	3	13.1	65	32
13	A Missouri Pub. Serv.	15	.72f	4.8	1.02De	D2	9	14.7	71	29
7	O Missouri Util.	23	1.36	5.7	1.76De	D2	3	13.1	77	33
44	S Montana Power	46	2.00	4.3	3.79De*	5	8	12.1	53	37
159	S New England Elec.	16	1.00	6.3	1.19De	D4	0	13.4	84	34
44	O New England G. & E.	18	1.05	5.8	1.50De	4	4	12.0	70	42
45	O New Orleans P. S.	42	2.25	5.4	2.84N	13	0	14.8	79	38
3	O Newport Elec.	17	1.10	6.5	1.02Ja	D22	—	16.7	108	31
89	S N. Y. State E. & G.	44	2.00	4.5	3.07Ja*	3	6	14.3	65	37
255	S Niagara Mohawk Pr.	33	1.80	5.5	1.91De*	D11	—	17.3	95	29
87	O Northern Ind. P. S.	41	2.00	4.8	3.02De	5	6	13.6	66	33
148	S Nor. States Power	19	1.00	5.2	1.23De	2	4	15.4	73	35
10	O Northwestern P. S.	17	1.00	5.9	1.39De	1	0	12.2	72	27
136	S Ohio Edison	53	2.64	5.0	3.62De	D5	5	14.6	73	41
50	S Oklahoma G. & E.	44	1.90	4.3	2.61F	7	5	16.6	73	36

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19	O Orange & Rockland Utils. .	19	.90	4.7	1.14De**	8	15	16.7	79	30
16	O Otter Tail Pr.	27	1.60	5.9	2.21Ja	3	1	12.2	72	34
501	S Pacific G. & E.	53	2.40	4.5b	3.41De	1	10	15.5	70	33
50	O Pacific P. & L.	34	1.60	4.7	2.05De*	D2	5	16.6	78	31
129	S Penn. Power & Lt.	46	2.40	5.2	3.23Ja	D2	9	14.2	74	30
236	S Phila. Elec.	40	2.00	5.0	2.60De	1	4	15.4	77	43
36	O Portland Gen. Elec.	25	1.20	4.8	1.75De	1	6	14.3	69	36
69	S Potomac Elec. Pr.	24	1.20	5.0	1.58De*	2	3	15.2	76	37
91	S Pub. Serv. of Colo.	47	1.80	3.8	2.81De	7	7	16.7	64	36
322	S Pub. Serv. E. & G.	33	1.80	5.5	2.22De	6	3	14.9	81	34
79	S Pub. Serv. of Ind.	40	2.00	5.0	2.71De	10	3	14.4	74	38
29	O Pub. Serv. of N. H.	18	1.00	5.6	1.31F	D9	13	13.7	76	32
12	O Pub. Serv. of N. M.	18	.80	4.4	1.15Se	3	7	15.7	70	37
27	S Puget Sound P. & L.	29	1.36	4.7	1.82De*	9	16	15.9	75	47
60	S Rochester G. & E.	32	1.60	5.0	2.26De	1	2	14.2	71	35
8	S St. Joseph L. & P.	26	1.50	5.8	2.06De	14	8	12.6	73	32
54	S San Diego G. & E.	24	.96	4.0	1.38Ja	D7	D	17.4	70	36
10	O Savannah E. P.	21	1.00	4.8	1.39Ja	2	21	15.1	72	29
10	O Sierra Pacific Pr.	25	1.40	5.6	1.95Ja	—	12	12.8	72	30
217	S So. Calif. Edison	54	2.40	4.4	3.12De	D10	D	17.3	77	33
46	S So. Carolina E. & G.	25	1.20	4.8	1.58De	5	15	15.8	76	36
7	O Southern Colo. Pr.	15	.80	5.3	1.33N	3	9	11.3	60	43
255	S Southern Company	28	1.20	4.3	1.65De	7	8	17.0	73	32
19	S So. Indiana G. & E.	30	1.60	5.3	2.34De	23	2	12.8	68	37
7	O So. Nevada Power	21	1.00	4.8	1.53Ja	D1	9	13.7	65	34
1	O Southern Utah Power	19	1.00	5.3	1.44Oc	2	1	13.2	70	39
3	O Southwestern E. S.	22	1.24	5.6	1.77N	8	3	12.4	70	28
42	S Southwestern P. S.	34	1.48	4.4	1.80Ja	7	5	18.9	82	35
30	A Tampa Electric	37	1.20	3.2	1.65De	D1	11	22.4	73	37
155	S Texas Utilities	48	1.60	3.3	2.56De	9	13	18.8	63	38
42	S Toledo Edison	13	.70	5.4	1.01De	—	—	12.9	69	31
16	O Tucson G. E. L. & P.	36	1.40	3.9	2.11De	4	15	17.1	66	35
129	S Union Elec. of Mo.	28	1.52	5.4	1.68De e	7	7	16.7	90	32
36	O United Illuminating	25	1.30	5.2	1.54De	D4	2	16.2	84	48
5	O Upper Peninsula Pr.	29	1.60	5.5	1.79N	D14	10	16.2	89	37
43	S Utah Power & Lt.	28	1.20	4.3	1.82De*	7	8	15.4	66	42
130	S Virginia E. & P.	27	1.00	3.7	1.55Ja	11	15	17.4	65	38
28	S Wash. Water Power	39	2.00	5.1	2.45Ja	6	9	15.9	82	36
139	S West Penn Elec.	29	1.50	5.2	2.20Ja	1	6	13.2	68	32
64	O West Penn Power	52	2.40	4.6	3.29Se	1	13	15.8	73	33
12	O Western Lt. & Tel.	35	2.00	5.7	2.77De	D12	7	12.6	72	38
28	O Western Mass. Cos.	41	2.20	5.4	3.23De	5	8	12.7	68	49
114	S Wisc. Elec. Pr. (Cons.) ..	36	1.60	4.4	2.40De	D2	0	15.0	67	40
43	O Wisconsin P. & L.	26	1.36	5.2	1.98De	6	4	13.1	69	37
40	S Wisconsin P. S.	23	1.20	5.2	1.68De	D6	5	13.7	71	38
Averages				4.9%			7%	15.0	72%	
Foreign Companies										
203	S Amer. & Foreign Pr.	13	\$1.00	7.7%	\$1.73Se	D28%	2%	7.5	58%	47%
149	A Brazilian Traction	6	.53a	8.8	2.19De**	86	D	2.7	34	73
75	A British Col. Pr.	41	1.40	3.4	2.33De	—	15	17.6	60	28
18	A Gatineau Power	33	1.50	4.5	2.39De	5	15	13.8	63	32
35	O Mexican L. & P.	12	.50b	4.2	1.67De**	D7	62	7.2	84	46
14	A Quebec Power	29	1.40	4.8	2.17De	8	14	13.4	65	53
63	A Shawinigan Water & Pr. ..	26	.68	2.6	1.48De	5	26	17.6	46	39

*Deferred taxes resulting from liberalized depreciation are not normalized. **Calendar year 1956. †For companies which have reported calendar year 1957 earnings. (For other companies the increase is for 1951-56.) D—Decrease. NC—Not comparable. A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Jc—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. a—Also 5 per cent stock dividend December 27, 1957. b—Also 5 per cent stock dividend May 1, 1957. c—Also 5 per cent stock dividend March 10, 1958. e—Excluding special nonoperating profits of 26 cents per share realized from the sale of coal properties. f—Also stock dividend of one-half per cent quarterly.



What Others Think

The Business Outlook—Why Economists Disagree

THE business news since the turn of the year has resolved at least one of the uncertainties that had previously obscured the economic picture. Until fairly recently, there was some question whether an actual business down turn was in the making or whether the sag was merely a pause along the road. Now, this issue is no longer in doubt; it is generally agreed that the American economy is in a full-fledged recession.

Regarding the extent and duration of the recession, however, and the prospects for a renewed upturn, opinions not only among economists but also among businessmen are as divergent as ever. In fact, rarely have competent observers differed so widely concerning the outlook. Opinions range from confidence in imminent recovery to concern over the possibility of a sustained depression. Perhaps this is not altogether surprising; during most of the postwar era, the economic environment has been generally expansive. Only in 1948-49 and 1953-54 did the economy as a whole recede significantly, and in both instances the decline was moderate and its duration was brief. Nevertheless, since the same economic information is available to all, one must ask how it happens that qualified economists should differ so radically in their interpretation of the present and their guesses as to the outlook. By explor-

ing these differences we may hope to gain better perspective regarding the economy's current position and what may be in store in the future.

So far, the progress of this third business recession in the postwar era closely resembles its two predecessors in many respects. Although the onset of a recession is always disturbing, it is some consolation to realize that the pace and extent of the down turn have not been perceptibly different from these previous moderate adjustment periods, and that the pattern of developments to date is by no means unusual.

THE gross national product—which is an estimate of the value of all goods and services produced, and thus more closely than any other indicator measures total economic activity—has receded only slightly from its peak rate of last year. Now estimated as running at a \$430 billion annual rate, it is only about 2½ per cent below the all-time record rate of \$440 billion reached in the third quarter of 1957. The biggest single factor contributing to this decline was the shift from an inventory build-up to liquidation in the closing months of 1957, and such a shift is altogether typical of a business recession. Inventory liquidation, in turn, was probably sparked by the more than ample sup-

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ply of goods of all kinds, abundant productive capacity, some moderate weakness in aggregate consumer buying, and a less optimistic appraisal of prospective demands in the period ahead.

In addition to the liquidation of inventories, a decline is getting under way in another major sector of the economy; namely, business outlays on new plant and equipment. Through the turn of the year, such outlays did not decline much, if at all, but the presence of excess industrial capacity virtually across the board, and the many signs pointing to deferments and cancellations in business expansion programs, have clearly affected business decisions and the business climate. Residential building, on the other hand, seems to have bottomed out in 1957 and for some months has been giving some tentative indications of an upturn. Total construction activity, moreover, is being well-sustained, largely by the persistent uptrend in public facilities.

Finally, the sag in defense orders, which became an unsettling factor in the business climate after the middle of last year, has been halted and reversed.

INDUSTRIAL production has dropped more than total economic activity, and this, too, is typical; with new orders down and inventories being liquidated, the business recession is affecting manufacturing and mining substantially more than the service industries. Within the manufacturing category, the durable goods industries—and particularly the production of primary metals, metal products, machinery, and transportation equipment—have been hardest hit. Most soft goods industries except textiles and petroleum are holding up fairly well, which again conforms to the usual pattern of recession.

The current down turn has had a conspicuous impact upon employment and

profits. Manufacturing employment and the factory workweek were easing off during much of 1957 and have fallen more rapidly in recent months. In February, partly because of seasonal curtailments in construction and trade, unemployment evidently rose to about 5 million, compared with an average of less than 3 million for 1955 through 1957. Corporate profits, too, have been adversely affected, to judge from the earnings statements currently becoming available. Personal income, however, although sagging for some months, is still very close to its all-time peak.

THUS, as always when a recession takes hold, the economic picture is neither one of unmitigated despair nor is it wholly reassuring. How long the down turn may continue, how long the economy may remain at recession levels, and how long until an upturn takes hold depend in large part upon the extent of the maladjustments in the economy and upon the reactions of consumers and businessmen as well as government to the developments already under way. It is because these maladjustments cannot be measured accurately and because these reactions and interactions cannot be forecast by any devices or techniques now available, that analysis of the economic prospects, even over the very near term, is today more than ever dependent upon human judgment. This presumably accounts for the prevailing divergence of views regarding the outlook.

A minority opinion is that the economic down turn has been virtually completed and that improvement is close at hand; if proven correct, this would make the 1957-58 recession one of the shortest in our history. At the other end is another group which suggests that business will continue to slide off throughout the remainder of

WHAT OTHERS THINK



"NOW DON'T TELL ME YOU DIDN'T HEAR THAT!"

1958 and that this may culminate in a sustained and serious depression. Most forecasters stand between these two poles; at present they expect the decline to end some time this year but even here there are many shades of thinking as to whether the end of the decline will be followed by a rapid improvement or whether we face a long period of lower activity, with recovery developing only slowly as time moves on. Basically, this broad spectrum of forecasts seems to be due mainly to differences in evaluating the prospects for various key sectors in our economy—business inventories, business investment out-

lays, consumer demands for automobiles, houses and goods in general, and the impact of actions by government.

THE CONSUMER. Consumer spending has repeatedly been a source of strength in our economy. This was the case not only in the early postwar period, but again in 1954 and 1955, when vigorous buying of new homes and automobiles sparked the recovery and led to a renewed business boom. Proponents of the optimistic school of thought point to the fact that incomes are cushioned by unemployment benefits and other social programs, that

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some 4 million workers are scheduled to receive automatic wage increases in 1958, and that further pay rises are in prospect. Consequently, they reason, consumer spending should continue strong and will provide a powerful incentive to recovery as soon as confidence is restored.

The more skeptical students of the business picture, however, note that consumer spending almost always holds up well in the early stages of a business recession, but that spreading layoffs, shorter workweeks, and inroads on savings cannot help but put a further crimp into consumer buying, especially of durable goods, which has already suffered a sharp decline.

Since the demand for consumer durable goods has an important effect upon those industries that have suffered the sharpest cutbacks in the current recession, their outlook, especially for the automobile industry, is in the forefront of attention. Passenger car sales have been in a sinking spell in the past few months and have been running some 30 per cent below a year ago. Despite steep reductions in output, dealers' stocks are at record heights and further production cutbacks are expected. Some observers are nevertheless reasonably confident that a good seasonal rise in sales will develop soon, and that the industry may still sell some 5.5 million cars this year. One factor bolstering their confidence is that more and more consumers are now making their final payments on automobile debt incurred during the banner year 1955 and thus will once again be ready to enter the market.

THE more cautious business analysts, however, place greater weight upon the current sag in incomes and employment, the effects of these declines upon the willingness of consumers to increase their debts at this time; also, they suggest that the public is not overly enthusiastic over

the 1958 models and in this economic environment is sensitive to their higher prices. Consequently, they doubt whether sales may reach even the 5 million mark this year, compared with 5.8 million in both 1956 and 1957.

The outlook for home building is likewise controversial; opinions are divided between those who expect increased availability of credit and easier financing to stimulate greater activity and those who question whether there will be sufficient demands to take the new houses off the market. In 1954, assisted by the greater availability of money and widespread liberalization of lending terms, housing starts advanced materially despite the slowdown in business, and many believe that an improvement in housing may again provide support to the economy in 1958. This point of view is encouraged by the expectation of yet easier financing to come, the spurt in applications for FHA appraisals in January, and the prospect of further action by government to make more funds available, at liberal terms, for the purchase of homes. Others, however, doubt whether buyers can be expected to show greatly increased interest in new home buying as long as employment and income prospects are questionable, especially in view of the large additions that have already been made to the housing stock in recent years and the rapid growth of mortgage debt.

THE BUSINESS SECTOR. The case for a speedy end to the recession rests in large part on the outlook for business inventories. It is frequently pointed out that inventories, in terms of physical volume, were not excessively high even at their 1957 peaks, that wholesalers and retailers have been following cautious inventory policies for over a year, and that on the manufacturing level considerable liquida-

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tion already has been achieved in the past few months, especially in stocks of basic materials; steel users, for example, have been living off their inventories for quite some time. Consequently, it is believed that inventory liquidation in the aggregate cannot persist for long, the more so as defense orders are rising. The economy may thus soon be relieved of the pressures of inventory reductions; some rebuilding of stocks is anticipated within the next few months.

Against this stands the view that some inventories particularly in manufacturing are still unduly heavy, and that the current weakness in spending on durable goods, both by consumers and by business, makes further liquidation a reasonable prospect. Also, it is emphasized that inventories rarely lead a business upturn; rather, they follow a revival of sales and are not accumulated to any significant extent—barring international upsets, of course—until recovery is well under way.

THE direction of business spending on new plant and equipment, at least over the near term, is one of the less debatable factors in the business outlook today; there is widespread agreement that such spending is on a decline. However, some economists hope that a turn for the better will come before the end of the year, while others hold that we have just concluded a major investment boom and that the down-trend in capital expenditures may last far longer and carry further than current surveys of spending plans would indicate. The optimistic point of view cites the underlying growth trends in the economy, the huge and expanding outlays for research and new product development, and the constant pressure to modernize facilities in order to meet competition and check rising costs. The more somber outlook, on the other hand, is bolstered by the sharp

drop in orders for machinery and new industrial building, falling business appropriations for new capital projects, and increasingly frequent reports of stretch-outs and cancellations. With profits squeezed and capacity likely to remain excessive in many major industries for some time to come, it is stressed, there may be little inducement to embark on further ambitious capital expansion programs for some years to come.

THE RÔLE OF GOVERNMENT. While the private sector of the economy is agreed to be in a sag, at least for the present, it is equally evident that demands by government, both on federal and on state and local levels, are in a rising trend. There is no dispute over the strength in public construction in 1958. State and local construction projects continue to expand, the highway program is picking up speed, military construction will rise sharply, and the federal government is planning larger public works. The big question seems to be whether, beyond these reasonably assured prospects, the federal government will initiate a sharply increased public works program, and how long, even if this is done, it will be before the impact of such a program is felt in terms of industrial activity and employment. The skeptics point out that since the construction industry as a whole is continuing to operate at a high rate of capacity, increased programs may merely create backlogs and bottlenecks without significantly helping employment and activity in the manufacturing sector of the economy, the more so as a great deal of construction machinery has been produced in advance of need.

Of perhaps more immediate interest to industry is the prospect of increased defense orders and expenditures. Major procurement contracts are on the rise, and although present plans of the Defense De-

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partment envisage a lower level of new orders in the second half of 1958, upward revisions are deemed likely. There is no doubt that this will be of important help especially to industries connected with missile development and production. The optimists, as already noted, place major importance on this prospect; they expect rising orders to play a major rôle in improving the inventory situation as a whole and curbing the downtrend in plant and equipment programs. The pessimistic view of the future, on the other hand, is inclined to minimize the impetus of the modest increase in defense outlays now being budgeted, especially since the increased military procurement is not likely to be of much benefit to important industries that are now in the doldrums. Nor can military spending be expected to trigger an important rise in business outlays on plant and equipment.

SHARP debate, likewise, surrounds the advisability and possible effects of a tax reduction. The prospects of tax relief have increased measurably in recent weeks, and if economic indicators continue downward, a tax cut would seem a reasonable prospect. As to the consequences of such action, however, opinions are divided.

Students of the economic scene generally agree that a tax cut would soon be translated into higher outlays for goods and services, but many doubt that the money would be spent in those sectors of the economy most in need of stimulation; namely, the durable goods industries or, for that matter, home building. It is contended that spending on new homes and automobiles, except in marginal instances, is influenced more by current and prospective employment and incomes rather than by the relatively minor increase resulting from a smaller withholding of income tax in the weekly pay envelope. In any event,

any support to the economy from this source is unlikely to show up until the latter part of the year.

THE INTERNATIONAL ECONOMY. Finally, growing attention is being paid to foreign economic developments and prospects. The investment boom seems to be waning in many countries abroad as well as in the United States, prices of basic raw materials have declined in the world markets, competition in foreign trade is becoming keener, and many countries are once again troubled by balance-of-payments problems. As a result, United States exports already have slipped, and while net exports are not large in relation to our economy as a whole, the effect on some companies and industries may be fairly pronounced. Looking ahead, those who take a cautious view of the American business outlook emphasize that, unlike 1953-54, United States business cannot now expect support from active and sustained economic expansion abroad, and that if world economic conditions become more troublesome, as well they may, this would add to our problems at home.

At the risk of oversimplifying or misrepresenting important qualifications and reservations of individual economists, the divergent views on the current business situation may now be summarized.

The optimistic school of thought foresees steady demands of consumers, augmented by increased expenditures on defense, clearing up the inventory situation in fairly short order. Thereafter, the rising trend of federal, state, and local government spending, strength in home building, and possibly renewed accumulation of business inventories are expected to impart a sufficient boost to the economy to overcome the effects of reduced outlays on plant and equipment. In fact, with increased demands mitigating the problems

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of excess capacity, business managements may soon resume their long-term expansion programs, so that the downtrend in capital spending should prove moderate and brief. In sum, this position holds that the forces of long-term growth are strong even over the near term, that the present recession is no more than a minor adjustment, and that expansion will soon be under way once more.

PROPOSERS of a more pessimistic view—again disregarding many differences in individual positions and emphasis—take a more serious and fundamental view of the recession now in progress. By and large, they interpret it as a basic and perhaps unavoidable readjustment after a vigorous and sustained capital investment boom, during which productive capacity has been materially overexpanded in many important industries. With consumers well supplied with homes and goods of all kinds, individual indebtedness pressing upon many family budgets, and the employment outlook less assured, significant adjustments in costs and prices and a shift of productive resources and labor among industries may be required, and considerable time may have to elapse before the economy moves uphill. Government spending and tax relief, in this appraisal, are likely to help moderate the decline but cannot be expected to forestall the inevitable aftermath of the sustained overinvestment, overproduction, overbuying, and overborrowing of recent years. As in the optimistic camp, of course, there are many differing predictions regarding the length of the downtrend, the levels to which it may carry, and the timing of recovery.

At the moment, there is some evidence to support both positions, and it would be wise to conclude this review of conflicting opinions without injecting a personal interpretation of the business scene. How-

ever, since this would beg the assignment, I shall, albeit reluctantly, express some personal judgments regarding the outlook.

I SUGGEST that the current downtrend in the economy is likely to be somewhat longer and deeper than either in 1948-49 or 1953-54. One reason is that the current decline in business spending on plant and equipment cannot be expected to end soon. Profit margins in a great many industries are being squeezed conspicuously, and the pressures of excess capacity, rising production costs, and keen price competition presage further depressing profit statements in the months ahead. Moreover, even with new expansion programs being cut back, capacity continues to grow substantially as the result of projects already in progress. In some instances, costs and competition may spur capital outlays designed to improve efficiency, but, on balance, it seems likely that total plant and equipment expenditures will continue downward through the end of the current year and possibly into 1959. Another business investment boom comparable to that of 1956-57 is not in sight for several years to come.

Furthermore, I fear there is little immediate prospect of a revival of economic activity from the side of the consumer. Outlays on nondurable goods and on services should hold up fairly well. This will provide important support to the economy, but it is not likely to spark an upturn in business. For the more volatile industries, such as automobiles and other durable goods, the outlook is less encouraging.

These lines usually do well when incomes are advancing; with consumers now well stocked, unemployment up, personal income static or sagging, and individual indebtedness high, it is difficult to see an upsurge of spending on durable goods in

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the offing at this time. Similar considerations cast some doubt also upon the prospects for a lusty housing year ahead; we may be doing well if the rate of home building in 1958 exceeds that of last year by even a small margin. Moreover, I question whether greater public spending or tax reductions would substantially affect the outlook for consumer durable goods over the near term.

THE prospects thus are that downward pressures on aggregate production and output will predominate in the months ahead, including pressures from some further liquidation of business inventories; there is no evidence as yet of a bottoming out in economic activity. When the decline does taper off, therefore, it will probably be moderately below present levels. However, although this point of view is clearly at odds with the optimistic anticipation of speedy recovery, I am equally in disagreement with those who see in the present recession the prelude to deep and protracted depression.

The recent expansion period, unlike some previous booms, has not been accompanied by widespread speculation in securities, commodities, or real estate based on short-term credit. Nor is there any real prospect of forced liquidation of short-term credit on a large scale, such as accentuated the declines during business recessions earlier in our history. The Federal Reserve since last November has made use of all three major instruments of credit policy—open market operations, the discount rate, and changes in reserve requirements—to reduce the cost of credit and supply funds to the market place, and interest rates have recently experienced the sharpest drop on record.

Furthermore, our economy now features a variety of government programs

which help cushion the impact of unemployment upon personal incomes and, hence, upon spending. These so-called stabilizers have not prevented—nor were they designed to prevent—the development of a business down turn, but they may be expected to reduce the chances of cumulative pressures which led to spiraling declines on some previous occasions. Finally, there is undeniable evidence of support in the current strength of total construction activity as well as in the defense program, which also argues against the probability of a sustained drop.

OBVIOUSLY, there is always some risk of a down turn carrying further than can reasonably be anticipated at any given moment; there is no reliable way to gauge the course of inventory liquidation, the market for homes and passenger cars, the effects of government action, or the many contradictory influences acting upon business investment programs.

Weighing the probabilities, therefore, it seems reasonable to assume that the decline in economic activity will come to a halt some time this year, although perhaps not in the months immediately ahead. As to the next question—when business will resume its advance—I doubt whether speculations are of much value until the current decline has given clear-cut evidence of bottoming out. When there is evidence that the economy is approaching the end of the downtrend, an appraisal of the recuperative forces then in prospect is likely to be more informed, more meaningful, and perhaps more enlightening than the sheer guesswork that any such attempt would now represent.

—ROY L. REIERSON,
*Vice president and chief economist,
Bankers Trust Company, New
York, New York.*

New York Commission Reports Rate Trends

A CONTINUING rise in the cost of utility operation was the overshadowing problem in the field of utility regulation during 1957, the New York Public Service Commission states in its annual report to Governor Averell Harriman and the state legislature. The report said that last year public utilities in the state sought increases totaling \$83,932,400 and were allowed \$56,297,000. During the same 12-month period reductions amounted to \$2,118,200, leaving a net increase of \$54,178,900.

The report states:

In prior years it had been possible for the commission to hold the rate line at crucial points. The increased volume of business, economies in operation, and low interest rates for capital outlays helped the companies to absorb a substantial part of their rising costs. During this period of approximately a decade there were intervals of lull or equilibrium in the utility rates level. The introduction of natural gas in large areas of the state in 1951 stemmed the mounting costs of gas fuel and during the last three or four years there was, in fact, a downward trend in rates for this class of service. Railroad and omnibus fares and water rates rose materially but the cost of electricity was held to approximately the 1940 levels and telephone rate increases were moderate.

The few periods of price relaxation were short-lived and each upward surge of the inflationary tide engulfed new ground. The year just closed reflects this condition. Mounting costs of construction to meet demands of the public for service, higher wage scales in new labor contracts, and plant financing at drastically increased cost of money com-

bined to push utility operating costs to new high levels. The result was a general advance in rates for all classes of services provided by the utility companies.

The commission has often warned that in the face of mounting prices all along the line of the national economy it will be impossible to resist indefinitely increases in the cost of all utility services.

THE report pointed to the losing fight against inflation as a problem confronting all utilities and every regulatory commission in the country. It cited with approval a finding of the rates committee of the National Association of Railroad and Utilities Commissioners that new inflation is causing and will continue to cause a new series of rate increases. The NARUC committee report warned that regulatory commission policies must be compatible with the programs of those utilities that plan for the long pull as distinguished from the make-do or short-haul plan. Regulation that is repressive, the report noted, may work to the immediate advantage of the user of service today but it may also ultimately work to his grievous disadvantage in the future.

The New York commission reported increases for telephone and telegraph service in 1957 totaling \$33,267,000. Of this amount, \$33 million went to the New York Telephone Company, about \$240,000 to nine of the independent telephone companies in the state, and approximately \$28,000 to the Western Union Telegraph Company. During the same period the New York Telephone Company made tariff adjustments in several areas of its territory resulting in reductions totaling over \$235,000 on an annual basis.

The increase in rates of the New York

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Telephone Company was authorized in a proceeding which had its origin in the latter part of 1953 when the company asked for approximately \$69 million in additional annual revenues. The commission denied this request in August, 1954, adhering to its original cost less depreciation basis of rate making. On appeal, the court of appeals ruled that the commission had erred in not admitting evidence of reproduction cost and that under the law the commission was required to give weight to the company's claims of current value of its property. The court also held that the commission had discretion to give such weight as it chose to reproduction cost and that if such evidence were excluded, the remedy lay with the legislature. Efforts by the commission to have the law changed during 1956 and 1957 failed. Governor Harriman has again proposed such legislation.

On the basis of the court decision, the company renewed its request for a rate increase, this time amounting to \$55,324,000 annually. The commission allowed the company \$33 million, concluding that the utility's reproduction cost data did not provide a tenable basis for a reasonably accurate determination of a reproduction cost rate base. It found, however, that because of inflated cost of new plant and facilities and increases in other operating costs, including wage increases amounting to some \$15 million annually, the company was entitled to additional revenue.

FOR the first time in four years increases in gas rates exceeded substantially the reductions made during the year, the commission reported. Various gas utilities requested increases totaling \$4,139,000. Voluntary decreases or by agreement with the commission amounted to \$1,529,000. The net increase in this class of service

during the year ended November 30th, amounted to \$2,607,600.

The principal increases in gas rates were made under the Purchased Gas Adjustment, which reflects changes authorized by the Federal Power Commission in the price of natural gas purchased by local utilities from interstate pipeline companies. Basic rates of local companies may be changed only by action of the state commission.

RATES of other utilities also rose in 1957. Increases were allowed in steam and water rates to meet rising cost of operations. Railroads requested more than \$9 million in new annual revenues and were allowed a total of \$5,642,500. Thirty-one bus companies sought increases totaling \$2,399,500 and were allowed \$2,242,500.

Railroads and omnibus companies are having a hard time financially, the commission reported. During the year, the commission had under consideration applications by various railroads for discontinuance of certain passenger trains. In cases where continued operation of the service was required by the public, the commission ordered the trains continued; but where patronage had fallen to low levels and the loss incurred by the carriers was substantial, authority to cease operations was authorized.

Eight of the smaller bus companies in the state discontinued service during the year because of declining revenues and increasing operating costs, the report stated. Other small units might not have survived, according to the report, but for the partial tax relief granted by the legislature in 1956 upon the recommendation of Governor Harriman. The legislation exempts the first \$500,000 of an omnibus company's gross revenues from the state $2\frac{1}{2}$ per cent gross revenue tax.

The commission reported that the large

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electric utilities in the state are furthering atomic power studies and projects, and the utilities generally, in order to meet the increasing demands for service, have spent more than \$600 million for new plant and equipment during the year. Plans for additional construction now on the drawing boards will infuse more than \$2 billion in the state's economy during

the next five years. To finance current construction the commission authorized various utilities under its jurisdiction to raise close to \$620 million in new funds through the issuance of bonds, stocks, and other forms of indebtedness. This figure set an all-time high in financing since regulation was established in New York in 1907.

PRDC Reports to Congress

POWER REACTOR DEVELOPMENT COMPANY, the 21-member nonprofit Michigan corporation currently engaged in the design and construction of a developmental fast neutron power breeder reactor near Monroe, Michigan, submitted its third annual progress report last month to the Joint Committee on Atomic Energy. The statement, signed by Walker L. Cisler, president of PRDC, was submitted in accordance with §202 of the Atomic Energy Act of 1954.

The report also included findings and conclusions of Atomic Power Development Associates, Inc., on research and development the 43-member nonprofit New York corporation is doing on the project.

Information on the conventional turbine-generator facilities being built adjacent to the reactor was covered in a separate statement also submitted by The Detroit Edison Company for the record of the §202 hearings. Detroit Edison, which has contracted with PRDC to build, own, and operate the nonnuclear portion of the plant, will purchase steam produced by the reactor from PRDC for the generation of electric power.

The plant, known as the Enrico Fermi atomic power plant, will initially have a rated capacity of 100,000 kilowatts of electricity and 300,000 kilowatts of heat. It is scheduled for operation August 31, 1960.

In the report Cisler stated that "During the past year the research and development phases of the project have proceeded very well. This work is going forward simultaneously with completion of design and with construction." He described a number of important long-range studies and research programs that are contributing valuable information to the design of reactor components and control systems.

CISLER expressed appreciation to Atomic Energy Commission laboratories for their co-operation with PRDC and APDA, both of which are closely following the progress of the fast reactor program of the commission. PRDC has been particularly interested in the redesign of the EBR-1 core and in the renewed operation of that reactor which began in November, 1957.

He pointed out that analyses made by PRDC consultants of the causes of the damage to the EBR-1 Mark II core in November, 1955, in common with other analyses, indicated that the overheating and partial melting of the core were caused by fuel element bowing. The redesigned core, Mark III, now eliminates the possibility of mechanical bowing and, said Cisler, "PRDC was extremely gratified to learn recently from Dr. Norman Hilberry, director of the Argonne National Laboratory, that the preliminary conclusions

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"I WENT BACK TO TELL THE PEOPLE ABOUT THE DOG BITING ME AND HE BIT ME AGAIN!"

from the initial experiments, including operation to approximately 50 per cent of power at full to one-third flow conditions, have indicated that these theoretical conclusions are correct."

Commenting on the current EBR-1 test program, Cisler reported that "the use of the oscillator technique at low reactor power levels during preliminary tests has proved to be effective in predicting reactor behavior at higher power levels." This is a technique which is proposed to be used in initial nuclear testing of the Enrico Fermi atomic power plant. "There has

never been any question of the safety of properly conducted oscillator tests," he said, "and it is gratifying to obtain further experimental verification that the information which is derived from such tests is reliable. This technique will undoubtedly prove to be a valuable one with respect to the technology of all reactor types."

APPROXIMATELY 200 engineers are engaged full time on various phases of the project, not including engineers engaged by suppliers of components.

Of the major components being fabri-

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cated, the sodium pumps and intermediate heat exchangers will be shipped this year and delivery of the reactor vessel is expected very soon.

Turning to the all-steel reactor containment building, Cisler noted that this building "has been completely erected and successfully pressure tested at 40 pounds per square inch in accordance with the ASME Code (American Society of Mechanical Engineers)." He reported that a 150-ton rotating building crane and a 25-ton crane have been installed and are being used in the placement of component parts in position. Interior photographs accompanying the report show foundation concrete for the reactor components complete, the lower section of the primary shield tank in place, and shield wall columns erected.

The most recent estimate on the cost of the completed plant—both nuclear and nonnuclear portions—and including all research and development items is \$75,298,432.

A breakdown of expenditures in connection with the PRDC project through December 31, 1957, by PRDC, APDA, and The Detroit Edison Company shows that these three organizations have actually expended over \$15.5 million.

CISLER described the formal hearings granted the interveners that opened on January 8, 1957, and continued until August 7, 1957. He pointed out that "No witness testified that he thought that presently available information indicates that fast reactors generally or the proposed PRDC reactor specifically are inherently unstable, unreliable, or unsafe. On the contrary, all ten of the expert physicists and engineers who testified for the various parties to the proceedings with respect to fast reactor technology and en-

gineering (including several members of the Advisory Committee on Reactor Safeguards) were of the opinion that, while further verification of safety must be had before operation at power, the research and test programs under way and proposed will probably provide such verification by the time the reactor is completed."

Cisler's statement covered the contract between PRDC and the Societe Belge Pour L'Industrie Nucleaire which provides for mutual exchange of information between the two countries. He also commented on visits made by PRDC representatives to United Kingdom Atomic Energy Authority facilities in Great Britain, including Calder Hall and the fast breeder reactor installation at Dounreay. In this connection, Cisler observed, "The fact that the British have given such high priority to the fast breeder reactor now being completed at Dounreay, Scotland; that the Belgians are actively at work to develop such a project; and that the Russians are reported also to have a reactor of this type under way, are further indications of the importance to the United States of progressing as rapidly as possible in this field."

"The PRDC management fully recognizes that before it can operate its reactor it must not only be satisfied itself but must affirmatively demonstrate to the satisfaction of the commission that no credible accident can result in radioactive hazard to the public," Cisler concluded. "It also recognizes that the primary objective of the project, to make progress toward demonstrating the economic feasibility of using nuclear power to generate electricity, can only be accomplished if public safety is and remains of prime concern. Adequate assurance of safety will certainly never be sacrificed to economy or expediency."

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Notes on Recent Publications

SECRETARY of Commerce Weeks recently made the position of the administration clear that the federal government should not be obligated to pay the costs of relocation of utility facilities involved in the construction of federal-aid highways. He also indicated a desire to prohibit or drastically curtail the location of utility facilities in the interstate system.

Last year Right of Way and Legislative Consultants, Inc., published a legal service entitled *Just Compensation*, dealing with the question of what is just compensation in the condemnation of land for public purposes. The huge federal-aid highway program, as well as other acquisitions of land for other purposes, has made this subject one of great importance today. The service presently contains Parts I, II, III, and IV, which were reviewed in this department in the May 9, 1957, issue. The publishers are now adding Part V to deal with certain sections of the Federal-Aid Highway Act of 1956, which are of particular interest to the general public.

Section 111 of this act deals with utility relocation costs. The new Part V will include pertinent current information, Bureau of Public Roads regulations, etc., under §111, and the "law of the state" of each of the 48 states. Section 111 provides in part that federal funds shall not be apportioned under that section when the payment to the utility violates "the law of the state."

Just Compensation is supplemented by monthly supplements so that the subjects included are kept up to the minute. The publishers propose through these monthly supplements to keep readers in touch with the developments that occur in Washington and with new state laws and decisions concerning the constitutionality of a state law which places the obligation to pay the relocation costs upon the state. The price of the basic legal service is \$50, with renewal at \$20 a year thereafter.

JUST COMPENSATION, Part V, by Henry J. Kaltenbach, Right of Way and Legislative Consultants, Inc. Suite 309, Barr building, Washington 6, D. C.

A NEW study by Bruce C. Netschert, staff

research associate in both the energy and minerals fields, has just been published for Resources for the Future by The Johns Hopkins Press. It is an inquiry into the availability of crude oil, natural gas, and natural gas liquids in the United States in the period through 1975.

Mr. Netschert concludes that in 1975 or thereabouts domestic availability, at no appreciable increase in constant dollar costs, could be about 6 billion barrels of crude oil and 22.5 trillion cubic feet of natural gas per year. As Sam H. Schurr, director of the RFF research program in energy and minerals, observes in the foreword to the book, "such expectations range the author alongside the optimistic analysts of future oil and gas supply in the United States."

The term "availability," as used in the study, includes only the elements of physical availability and technologic feasibility as they bear on future supply prospects. It thus excludes demand and other important factors that will influence actual domestic production. These are the subject of current RFF inquiry which will provide the perspective for translating the present availability estimates into forecasts of production in a broader study.

For the first time, existing published estimates of oil and gas reserves and resources, by the leading scholars in the field, are brought together and systematically reviewed. The differences in techniques, assumptions, and definitions are analyzed; and all the estimates are then adjusted in accord with a set of uniform definitions in an effort to make them more comparable.

The effort also is made to analyze the real variables—economic, technological, or geological—that will affect future availability of oil and gas. Technology is considered a dynamic factor of the first importance; the author avoids the mechanical extrapolation of trends, with its static treatment of technology.

THE FUTURE SUPPLY OF OIL AND GAS, by Bruce C. Netschert, Johns Hopkins Press, Baltimore 18, Maryland, 1958. Price, \$3.

The March of Events



TVA-Coal Meeting Successful

THE full board of directors of the Tennessee Valley Authority met with representatives of the Southern Coal Producers Association in Knoxville last month.

Joseph Moody, president of the coal producers' association, said he was "not at liberty to discuss the suggestions made to TVA with regard to their coal-purchasing policies (long criticized by both organized miners and organized mine owners) . . . but I feel, as a result of this meeting, there will be a definite improvement in relations between the coal industry and TVA which will benefit the whole economic situation in this area."

He emphasized that "no suggestions were approved or disapproved," but discussions were "friendly and comprehensive" on all points of coal business which would deal with the distribution of TVA buying over the field. Moody added that there would be a "follow-up meeting" of a similar group some time in May.

General Herbert D. Vogel, chairman of the TVA board of directors, made a state-

ment similar to Moody's concerning the meeting.

REA Fund Plan Scored

PRESIDENT Eisenhower's proposal that rural electric co-operatives obtain needed funds from private financing rather than the government was criticized by two sources recently.

In a letter to the President, made public on March 23rd, Clyde T. Ellis, general manager of the National Rural Electric Co-operative Association, asked for assurance that the administration "will ditch your Budget message pronouncement calling for a restrictive REA loan program."

The private financing proposal also came under attack by Representative Jamie L. Whitten (Democrat, Mississippi), chairman of the House Agriculture Appropriations Subcommittee. This was disclosed with the release of the transcript of recent subcommittee hearings. He contended that the Eisenhower plan could result in handing over the rural electric co-operatives to private utilities.

Alabama

Mayors Seek FPC Probe

THE mayors of Birmingham, Gadsden, and Tuscaloosa recently decided to try to initiate a congressional investiga-

tion of the practices of the Federal Power Commission.

Mayors James W. Morgan of Birmingham, Hugh Patterson of Gadsden, and

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George M. Van Tassel decided to call on Alabama's delegation to Congress for help in initiating the inquiry as part of a four-phase fight against rate increases for natural gas.

The mayors and other representatives of the cities met at Birmingham to discuss the recent settlement between Southern Natural Gas Company and the distributors to whom it sells its commodity which, if agreed to by the FPC, will grant Southern Natural a yearly rate increase amounting to approximately \$11 million. Southern Natural originally had asked for a rate increase totaling more than \$18 million.

Attorney Mayer U. Newfield and Attorney E. K. Hanby (who also is a legislator from Etowah county), who represented the three cities on the matter before the FPC, told the mayors that the federal body has the power to regulate contracts between pipeline companies and the independent suppliers. However, said

Mr. Newfield, the FPC has refused to exercise this authority.

Newfield listed three avenues the mayors might follow in fighting the situation. They decided to follow them all. They include: (1) Get Alabama's members of Congress to press for an inquiry as to why the FPC has failed to exercise its authority at the wellhead; (2) appear before the state public service commission when the Alabama Gas Company compensatory rate increase comes up for hearing to make sure the company has absorbed all of the increased cost that it can; (3) file in writing a protest against the present ratio of increased cost allocated to residential consumers as opposed to commercial and industrial consumers.

Mayor Patterson suggested that a general stiffening of opposition by municipal officials all over the state was needed and suggested that a united front might be secured through the Alabama League of Municipalities.

Idaho

Suit Challenges Utility Taxes

AFTER hearing arguments on the constitutionality of a 1955 state utility assessment law as it pertains to the state public utilities commission, District Judge M. Oliver Koelsch in Boise last month asked opposing attorneys to submit briefs on the question.

Originally filed in October, 1955, on behalf of Garrett Freightlines, Inc., of Pocatello, the action contends that Chapter 10, Title 61 of the Idaho code is unconstitutional in that it attempts to dele-

gate to a branch of the executive division of the state government—namely, the public utilities commission—the power to determine the tax or fee to provide revenue to finance 80 per cent of the commission's budget.

Garrett also contended that the statute was unconstitutionally discriminatory in that while it purports to levy a tax based on operating revenues of various public utilities, railroads, motor carriers, and others, it actually levies a flat \$5 fee for private carriers but does not do so for others.

Kentucky

House Passes Utility Bill

ABILL to prevent cities from duplicating electric, water, or gas facili-

ties that already exist in their areas was passed by the Kentucky house of representatives and sent to the state senate last month. Listed as Bill No. 550, the

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measure would prevent a city from acquiring an existing electric, gas, or water

plant other than by purchase or by eminent domain.

Maryland

Bill Set to Put Wires In Ground

LEGISLATION requiring utilities to eliminate the overhead power lines which caused much of the damage in the wake of last month's snowstorm will be sponsored at the next state general assembly session.

Delegate Samuel A. Culotta (Republican) said his proposed bill would require the substitution of underground power conduits for the present overhead installations in all city and heavily populated county areas.

The delegate said that while the greatest dangers and inconveniences were caused by the collapse of power lines, he thought telephone lines should also be placed underground.

While Mr. Culotta said the details of his bill had not yet been firmly established, he called upon the utilities to join with him in preparing the legislation. He said it was difficult to understand why real estate developers, in co-operation with the utilities, had not provided for such underground installation at the time of building.

Michigan

Rate Boost Case Delayed

WAGE increases granted after an eight-day strike apparently are going to be incorporated in a Consumers Power Company application to the state public service commission for a rate increase. Hearings were supposed to start March 17th on a petition for rate increases of \$12,750,000 a year, but the company asked for time to make additions to "reflect increased operating expenses."

Commission Chairman Otis M. Smith said the company was expected to add the cost of the strike settlement to the original request.

"Rising costs of doing business leave us no alternative," said Dan E. Karn, president of the company.

City Defers Expansion Plans

BEFORE the city of Grand Haven proceeds with plans to expand its municipal lighting facilities by building a steam-generating plant, it will consider an offer by Consumers Power Company to purchase wholesale power in the amount the steam plant would produce, it was reported recently.

Under the proposal made by Consumers to the city commission, the city would continue to operate its diesel generating plant and the rest of the municipal electric system, but would buy the additional power it needs instead of investing \$3 million to \$5 million in a new generating plant.

The commission voted last month to delay construction plans for thirty days.

New York

Governor Vetoes Agency Curb Bill

GOVERNOR Harriman last month vetoed a bill that would have per-

mitted judicial review of determinations of fact by state administrative agencies. His memorandum included statements supporting his position from the state pub-

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lic service commission and Attorney General Louis J. Lefkowitz.

"This bill would render the work of administrative agencies ineffective, unnecessarily impose onerous burdens on the state's judicial system, and alter a historic arrangement of functions without showing the need for such alteration," the governor said.

The bill went through both houses of the legislature on unanimous votes and without debate.

The governor quoted the attorney general as saying the bill would overtax the judicial system, and the state public service commission as saying it would virtually render nugatory "all quasi-judicial administrative determinations."

Niagara Fund Voted

THE state senate last month approved and sent to Governor Harriman a bill intended to reimburse the Niagara Falls area for hardships suffered because of construction of the Niagara power project.

The measure provides that the city of Niagara Falls and Niagara county will receive \$3 million over the next five years in lieu of taxes they would have collected on land that will become tax-exempt as part of the project. In addition, \$1.5 million will be paid to the city for local improvements it will be required to undertake as a result of construction of the project.

Bill to Aid Utilities Sent Governor

A BILL that would save the state's utility companies an estimated total of \$78 million in relocation expenses was approved last month by the state assembly and sent to Governor Harriman. The vote was 120 to 27.

The measure provides that the cost of moving all communication, power, gas, oil, and water lines necessitated by the construction of federally aided highways must be borne by the taxpayers rather than the utilities, as is now the case.

Rhode Island

Propane Storage Permitted

PERMISSION to erect 12 propane storage tanks at Fields Point to provide a two-day emergency fuel supply in case the natural gas pipeline from Texas fails was granted the Providence Gas Company re-

cently by the Providence Building Board of Review.

The tanks will hold a total of 690,000 gallons of liquid propane and will take care of the gas company's emergency needs for at least the next three years, the board was told.

Washington

Interim Phone Rate Increase Denied

THE state public service commission decided last month that the Pacific Telephone & Telegraph Company will have to wait until after July 12th for any rate boost. The commission announced denial of the company's request for an interim increase in long-distance tolls and charges for nonrecurring services. The

interim boost would have cost subscribers in the state \$3.8 million while awaiting action by the commission on a permanent increase which would cost \$9,250,000 a year.

Commission Chairman Francis Pearson said the interim boost was denied because of the short time until July 12th, by which date a decision must be made on the permanent rates.



Progress of Regulation

Trends and Topics

Security Issues for Nonutility Purposes

PUBLIC utility companies are sometimes engaged in businesses, or in business transactions, which do not come within the scope of the public utility laws. Financing such activities by the issuance of securities which may place an obligation upon public utility activities, according to reported decisions, would be improper. Users of public utility service, it has been said, should not be burdened with financial obligations incurred for nonutility purposes.

Note Issue to Avoid Heavy Tax

The New York commission recently denied authority to the New York Water Service Corporation to issue promissory notes which would be used to retire a portion of its stock. The commission saw no benefit to customers but saw two items of detriment: First, creation of debt not necessary in the conduct of utility business and, second, pledging the credit of a utility for the benefit of nonutility activities.

The company had realized a large profit as the result of condemnation of properties by public authorities. Stockholders demanded a share of the profit. The company proposed to hold the proceeds, for utility investment, to avoid a large federal tax. It wanted to satisfy stockholders without a distribution that would result in taxes.

The commission, however, did suggest the possibility of segregating utility and nonutility functions of the company, but no such alternate plans were before the commission (22 PUR3d 111).

Financing Unregulated Business

The New Mexico commission said that a statute setting forth the purposes for which a utility company may issue bonds does not permit the commission to approve fully a mortgage loan which places a lien upon all of the utility's properties if the major portion of the proceeds of the loan is to be applied to nonutility business. The commission decided that a gas and electric company's proposed loan to be secured by a mortgage should be approved only to the

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extent that the proceeds would be applied for utility purposes. This company, besides engaging in public utility business, was also engaged in the business of furnishing liquefied petroleum gas in enclosed containers or by tank truck, an activity expressly exempted by state law from regulation (12 PUR3d 378).

The Illinois commission denied authority to a company operating a warehouse as a public utility to issue securities where little or none of the proceeds would be invested in property used or useful in the public utility business. The stock would be issued largely for the purpose of buying grain—clearly not a utility business (PUR1919C 352).

A gas utility obtaining authority from the Missouri commission to issue bonds was forbidden to use the proceeds for its merchandising department or for any other nonutility activity not subject to commission jurisdiction (PUR1932A 169).

A company was denied authority, in a proceeding before the Nebraska commission, to issue securities with respect to the acquisition of nonutility ice property since its operation was not connected with the utility properties. If bonds were issued they might become a burden on the utility property (PUR1930B 253).

Financing Buildings

The Massachusetts commission, many years ago, decided that an expenditure by an electric company for the erection of a building for lease to a manufacturing concern which might not otherwise have become a customer, should not be represented in the permanent securities of the utility (PUR1917F 99).

The Indiana commission denied authority to a telephone company to issue preferred stock for the purpose of providing funds for the purchase of the common capital stock of a company which owned a building leased and occupied by the telephone company. The commission said it would not be in the public interest for the company to own and speculate in the stocks of other nonutility corporations (15 PUR NS 215).

Other Nonutility Purposes

The California commission denied authority to execute a note and to mortgage public utility property in order to raise money to pay an attorney for services where only a small part of the indebtedness represented a charge for services rendered in connection with public utility operations (PUR1919E 245).

The Maine commission denied authority to issue securities for the purpose of capitalizing an assessment paid by Central Maine Power Company for the purpose of maintaining flowage and preserving water-power conditions when the water-power property affected was not in use and was bringing no revenue to the company (PUR1923B 783).

The Pennsylvania commission, in denying authority to issue common stock, stated that one of its policies was to approve securities only for purposes "related to the rendition of its public service." The company was not permitted

to issue common stock when its purpose was to acquire from a parent company additional holdings in a public utility operating at a loss in another state and not connected in any way with the operations of the issuing company (10 PUR NS 236).

Review of Current Cases

Unilateral Increase over Contract Rate Rejected as Basis for Gas Producer Refund

ON review brought by Natural Gas Pipeline Company of America, a federal court of appeals overturned orders of the Federal Power Commission which allowed a unilateral increase in a contract rate of an independent natural gas producer. A refund was directed to be paid by the producer, Dorchester Corporation, on the basis of the contract rate with Natural found to be in effect on June 7, 1954.

Surrounding Circumstances

The case goes back to a 1946 contract between the parties providing for a rate of 6.253 cents per Mcf in 1951 and extending beyond the time of the Phillips decision of June 7, 1954, which brought producers under federal jurisdiction (3 PUR3d 129). In 1952 the Oklahoma commission fixed a rate of 9.8262 cents per Mcf applicable to Dorchester's sales. Natural paid the higher price under protest subject to the outcome of an appeal from the state action.

After the Phillips decision, Dorchester was required by the Federal Power Commission to file its rates in effect on June 7, 1954.

Dorchester accordingly filed the contract, together with supplements including the Oklahoma commission rate order. The federal commission accepted the order for filing on condition that it be upheld by the Supreme Court.

In March, 1955, a new rate of 10 cents

per Mcf was allowed to go into effect under bond to secure the difference between 10 cents and 9.8262 cents. Shortly thereafter, the Supreme Court invalidated the state-fixed rate of 9.8262 cents (8 PUR3d 7). Natural protested the adequacy of the bond but the commission ruled that it was adequate, holding simply that the legal rate in effect on June 7, 1954, was 9.8262. "The facts that it was under protest, that a lesser amount was paid for a short time thereafter, or that the rate was subsequently declared invalid were, according to the commission, irrelevant to the determination of the effective rate on June 7, 1954," the court observed.

Dorchester withdrew the 10-cent rate, whereupon the commission reinstated the 9.8262-cent rate and ordered a refund of the difference between these two rates. "Thus Natural was deprived of its contract rate through a unilateral filing of a higher rate by Dorchester, with no hearing or finding by the commission—the only regulatory agency with authority over the contract rate—as to the illegality of that rate."

In order to remove any uncertainty about the 9.8262-cent rate, Dorchester again filed this rate, which the commission allowed to become effective in January, 1956.

An objection by Natural was treated as a request for rehearing. Rehearing was denied.

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Contract Rate Effective

Under the Mobile decision (12 PUR3d 112) a unilateral filing of a new rate by one party, over the protest of another party, cannot annul a contract rate. The fact that the Mobile case dealt with an attempt to supersede an already filed rate and that the instant case was concerned with the filing of an initial rate is an immaterial difference, the court declared. This in no way impairs the commission's power to modify contracts when necessary in the public interest. The shortcoming here, said the court, was that the commission made no attempt to find out what was in the public interest.

While Dorchester admitted that the Mobile decision prevents a unilateral change in a contract rate, it insisted that because the state-fixed rate had not yet been found unlawful on June 7, 1954, that rate became the effective filed rate. The court pointed out that the federal commission had itself recognized the precarious basis of the state action. It had accepted the Oklahoma price for filing con-

tingent upon the eventual decision of the Supreme Court.

The contract rate could be changed only after a hearing by the commission as to its lawfulness unless, as set out in the contract itself, a valid law or lawful regulatory order affected it. When the Supreme Court set aside the Oklahoma commission order, there was no valid law or order which could modify the contract rate. The contract rate of 6.253 cents was therefore the effective rate on June 7, 1954, and the refund ordered to be paid by Dorchester should have been based upon this rate rather than the state-fixed rate of 9.8262 cents.

The court ruled in favor of Natural on issues of Natural's aggrievement under the review provisions of the Natural Gas Act. The court rejected a contention that a protest by Natural, accepted by the commission as an application for rehearing, was inadequate as such, under the statute. *Natural Gas Pipeline Co. of America v. Federal Power Commission et al. No. 11,862, February 26, 1958.*



Electric Rates Reduced to Meet Competition

PACIFIC GAS AND ELECTRIC COMPANY secured authority from the California commission to reduce electric rates in a limited area of its service territory to meet competition. Permission was granted, however, on the company's stipulation that the reduced rates would not be permitted to affect its ratepayers outside the special rate area. Revenues would be computed for rate-making purposes as though system rates remained in effect. Thus, in the event that gross revenues should not meet the cost of operation (including a reasonable return), any loss so incurred would not become a charge or burden upon other customers of the company. However, the company expected the new rates in the

area would produce a modest net revenue.

The reduced rates would be equivalent to those being levied by the Shasta Dam Area Public Utility District, which would compete with Pacific Gas and Electric in the area.

The utility company pointed out that the rate reduction was necessary for the protection of its substantial investment in the Shasta dam area.

The commission expressed the view that the company has a legal right to reduce rates in order to meet competition without leaving itself open to a charge of unlawful locality discrimination. The company should not be compelled to charge rates which will annihilate its service in the

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competitive territory, said the commission, merely for the purpose of maintaining all of a particular class of customers on an

exact parity. *Re Pacific Gas & E. Co. Decision No. 56242, Case No. 6011, February 18, 1958.*



Department Stores Denied Rehearing in New York Telephone Case

THE New York commission denied the request of nine department stores for a rehearing in the New York Telephone case (20 PUR3d 129). The department stores' complaint was not against the \$33 million rate increase granted by the commission, but was grounded on contentions that the rates for residence and business service should be the same, and that the form of the rate for additional message units was objectionable.

Among factors to be considered in constructing a rate schedule, pointed out the commission, are the company's need of revenue, the sharing of the burden of increases, the characteristics of the customer's load, and the restrictive revenue effect of rate increases. The last mentioned could be likened to the problem of merchandising. The commission was quite sure that the department stores themselves would be the last to urge that each item which they offered to the public should be priced on the same margin of profit irrespective of other considerations.

Discretion as to Rate Classification

The legislature itself, said the commission, clearly indicated that it expected there would be a broad field of tolerance and reasonable allowance for discretion in fixing rates—particularly as to form. It had not set any standard of proof. Under the commission's statewide theory of rate making there are different rates for subscribers in different exchanges, depending upon the number of subscribers in the exchange. With any such form of rate making there has to be a breaking point be-

tween the different exchanges. And the breaking point has to be somewhat arbitrary. The same holds true for establishment of toll rates.

The present tariff of the New York Telephone Company, on file with the commission, consisted of over 2,000 pages and covered a multiplicity of rates for many different types of service. The commission understood the position of the department stores to be that none of the rates contained therein could be permitted to become effective after a rate case unless there was detailed and express proof justifying the particular rate. The legislature never contemplated any such cumbersome system.

The differential between business and residence rates, held the commission, has long been established as a general pattern of rates throughout the United States. As early as 1926, in *Guiding Principles of Public Service Regulation*, H. C. Spurr, at page 780, had pointed out that it was well-established that a telephone company could charge a higher rate to business subscribers than to ordinary subscribers, and that the differential was justified in view of the greater benefits and higher costs incident to business service.

Additional Message Units

The commission also rejected the contention that the form of charges for additional message units was objectionable. Rates are not tailored to the individual customer, and should not be. They are designed to treat equally within each class varying groups of customers. An effort to

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introduce differing rates would cause complexities in the rate-making process fearful to contemplate, the commission said.

The department stores had urged that the increase to them was proportionately greater than to other users of extra message units, even though cost per average

call was less. The commission commented that if the increase for all items of service was considered, it was considerably less, proportionately, than for certain other groups, notably residence customers. *Re New York Teleph. Co. Case 16548, February 17, 1958.*



Review of Fee Awards in Holding Company Reorganization

THE United States court of appeals affirmed a district court order approving and enforcing an order of the Securities and Exchange Commission allowing fees and expenses for the attorney and financial advisers of the United Corporation for services rendered in a holding company reorganization proceeding. However, it reversed and remanded orders relating to fees and expenses of Joseph B. Hyman, an attorney for a stockholders' group, and Randolph Phillips, a stockholder acting on behalf of himself and other stockholders.

Mr. Phillips claimed that the same considerations should be applied to the fees awarded United's representatives as to the fees awarded him. The court disagreed, saying that the practical differences between company counsel and intervener's counsel in a reorganization proceeding preclude any strict standards equally applicable to both. It said the compensability for work performed by company counsel is, as a practical matter, generally conceded unless the circumstances indicate that counsel operated in a manner not contemplated by the Holding Company Act. The court did not believe there were such circumstances in this case.

The court said that if the fee requested by responsible company representatives is reasonable, detailed analysis of the fee is not required. Practical significance must be given to the client-attorney relationship

in these proceedings, according to the court, and disqualification of a fee is called for only in those special circumstances where the Holding Company Act itself is subverted to the desires of individuals to profit by the required reorganization.

Intervener's Fees

The commission had rejected its hearing examiner's findings with respect to the fee and expense award for Mr. Phillips without making any express new findings.

The court said that while it was not required to give the trial examiner's findings more weight than they deserve in the light of reason and judicial experience, they should be accorded the relevance that they reasonably command in answering the overall question whether the evidence supporting the commission's order was substantial.

The court held that the final order of the commission should have included findings and conclusions upon all material issues presented on the record as well as the reasons or basis for its decision. In this case, however, with respect to the Phillips allowance, the commission had failed to make the explicit findings required of it by both judicial decisions and the Administrative Procedure Act. While it rejected the findings of its own hearing examiner, as well as United's express concession, as to the time devoted by Phillips, it failed to

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make any finding with respect to compensable hours. In fact, the commission did not even attempt to determine Phillips' allowable expenses, merely stating that in its opinion it was impossible from the record to allocate such expenses.

The court concluded that the commission erred in failing to set forth the basis

of its allowance to Phillips or any standard or method of valuation of his services or disbursements. The court also said that what was said with reference to the commission's failure to make required findings in its allowance to Mr. Phillips was equally applicable to Mr. Hyman. *Re United Corp.* 249 F2d 168.



Remand to Commission for Further Proceedings on Obsolescence Losses Held Proper

IN a case involving rates for a transit company which had converted to motorbuses, the Minnesota supreme court held the lower court's remand to the commission for further proceedings regarding obsolescence losses had been proper. However, the lower court was held to have erred in not affirming commission findings relating to track-removal expense and the valuation of buildings on the basis of book value less depreciation.

The principle of law which guides the commission's discretion in determining whether customers or investors should be charged with the amount of losses due to obsolescence is twofold, pointed out the court: (1) The future customer may not be charged for obsolescence through any method of accounting unless the investor has suffered an actual loss by not having fully recovered prudently invested funds, and (2) even if such loss has occurred, it is unreasonable to charge the customer if the investor has been compensated for assuming the risk of obsolescence.

The transit company, pointed out the court, in sustaining its burden of proof with reference to the issue of obsolescence, must produce records which it should be reasonably expected to have. In the absence of complete evidence, the commission may apply its experience and background to reach a just result. Where actual

loss has occurred due to obsolescence, the commission may apportion one-half of all such actual loss to the public utility investor and charge the remaining one-half to future customers by amortization as an operating expense over a period of years.

Franchise Settlement and Track-removal Expense

An arrangement between the company and the city obligated the company to perform work on track removal at a cost not to exceed a designated sum, and to pay a designated amount in settlement of its franchise to operate streetcars. The commission was held not to have acted arbitrarily and unreasonably in permitting the franchise settlement to be charged as an operating expense over an 8-year period and in denying the company's request to amortize track-removal expense over a like period.

The franchise settlement was represented by notes payable in instalments over a period of eight years, the track-removal expense was a nonrecurring item, and it was not an unreasonable exercise of judgment to determine that both obligations should be charged to operating expenses in the years in which they became payable. *Minneapolis Street R. Co. v. City of Minneapolis*, 86 NW2d 657.

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Authority to Limit Certificate

THE Virginia supreme court reversed a commission order which, while granting an original motor carrier certificate for the transportation of household goods, imposed a restriction limiting the holder to the transportation of such goods between a specified county on the one hand and all other points in the state on the other hand.

The court held that the commission had no authority under the state Household Goods Carriers Act to restrict operations to and from a definite point within the state.

The case was remanded for further action consistent with the court's decision. *Fawley Motor Lines v. Virginia*, 101 SE2d 510.



Fuel Clause of General Applicability Approved

SUBJECT to continuing approval of individual monthly adjustments, the Maine commission authorized Central Maine Power Company to establish a fuel clause applicable to its various classes of customers, including residential, commercial lighting, and others. The amount of allowable revenue had previously been decided after a court decision (21 PUR3d 321). The only question before the commission here was the application of the fuel cost adjustment rate to the general classes of customers.

This type of rate has been applied to industrial and other large customers in Maine for over fifteen years. The commission noted that fuel cost adjustment rates are applied to general customers in most New England states and that their application has been expanded in recent years. In view of the satisfactory results which have attended their application to industrial customers, the commission thought it reasonable to assume that the introduction of a sound rate adjustment provision would be equally appropriate in residential customer schedules.

The proposed clause is a simple formula

incorporating two specific elements; i.e., the actual variations in fuel cost for the company and the variations in fuel requirements caused by changing water-power conditions.

Economic Basis

The fuel adjustment clause points the way toward the solution of one of the more acute problems in the utility rate-making field, the commission observed. The problem is the integration of public utility rates, which are generally of a rigid nature, into a flexible national economy. In times of rising price levels, when the ability of the customer to pay has in most instances moved upwards, the fuel clause effects an increase in the price of service. Likewise, it reduces the price of service in a period of falling prices when customers are in need of reducing expenses.

In approving the fuel clause, however, the commission required the company to file each individual adjustment for commission approval prior to its application to monthly billings. *Re Central Maine Power Co. F. C. No. 1498, Supplemental Decree No. 3, January 31, 1958.*



Hearing Procedure Prescribed

IN a rate proceeding instituted by the Federal Power Commission upon its

own motion, the commission ruled that the staff should be permitted to close the pro-

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ceeding by presenting evidence in rebuttal to that submitted by the company whose rates were under investigation. The commission expressed the view that one who is required to open a proceeding should also have the right to close.

This procedure was prescribed on appeal from a ruling by the presiding ex-

aminer allowing the utility to close with a rebuttal in response to the case made by complainants. The commission thought the proceedings would be concluded more equitably and expeditiously under the procedure which it prescribed. *Re Champlin Oil & Refining Co. Docket Nos. G-9277, G-9280, January 27, 1958.*



Free Footage Telephone Line Extension Rule

THE California commission ordered telephone companies to file a line extension schedule containing a 1,000-foot free allowance per applicant along public roads. The commission was of the opinion that such a rule would result in widespread development of telephone service without unduly burdening the general body of subscribers.

With respect to private property, however, the commission felt that a 300-foot allowance applicable to construction was reasonable. In general, there was little po-

tential for the connecting of additional customers; so to allow a lesser free footage on private property than for extensions constructed along public roads was reasonable.

The commission was not in accord with the views of four utilities recommending no free construction on private property, since reduction of free footage to zero appeared to be unnecessarily restrictive. *Re Pacific Teleph. & Teleg. Co. et al. Decision No. 55892, Case No. 5337, December 3, 1957.*



Denial of Passenger Train Discontinuance Reversed

THE Oklahoma supreme court reversed a commission order denying a railroad's application for authority to discontinue certain passenger trains. The commission had based its denial on the ground that there existed a public necessity as distinguished from a public convenience for continued passenger service.

The court found that the order was not supported by substantial evidence. The railroad had shown its entire passenger sys-

tem, as well as the branch line passenger trains in question, was being operated at a constant, continuous, and substantial loss. Such losses had to be made up by increased freight rates. Rising passenger rates would be useless, since there were no passengers. A bus company was ready to take over the passenger service in small villages. *Missouri-K.-T. R. Co. v. Oklahoma, 319 P2d 590; St. Louis-S. F. R. Co. v. Oklahoma, 319 P2d 592.*



Accelerated Depreciation Tax Deferrals, Economic Depreciation, and Retiral Rate Base Exclusions

THE Michigan commission, in authorizing increased rates for a subsidiary gas company, which would produce a re-

turn of 6.5 per cent, rejected a claim that cost of service should be adjusted to eliminate provision for deferred federal

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income taxes resulting from election to use accelerated depreciation. The commission rejected the company's proposal for an economic depreciation allowance, and ruled on the question of oil-gas plant which had become stand-by after the company's conversion to natural gas.

Tax Deferrals

The use of either "declining balance" or "sum-of-the-years-digits" method does not change the amount of depreciation allowance for tax purposes, pointed out the commission. A definite tax liability is incurred whatever method of depreciation for tax purposes is elected. Borrowing future tax depreciation credits for current tax computations incurs liability for future higher tax payments. The creation of a tax liability cannot be construed as a saving. It is merely a postponement of the date when the tax is payable.

It is incorrect to claim that the so-called nonexistent liability is charged to the ratepayer. Charges to the ratepayer are in conformity with the orders of the commission. Deferment of taxes is a grant of the federal government and not the commission. The accounting prescribed by the commission recognized the tax liability and provided that it be recorded in the books of the company. Funds go into a reserve account for the payment of deferred taxes to accrue so long as the company elects to use the sum-of-the-years-digits method. Though thus earmarked, the funds are available for income-producing purposes.

This effectuates congressional intent, and the commission's prescribed accounting does not result in higher rates to the consumer. In fact, it operates to reduce them. It aids the company and does not harm the ratepayers.

The fact that there may be continuing additions to plant, year by year, pointed

out the commission, with the result that there will be a balance in the reserve account in the foreseeable future, does not prove that there is no tax deferral. On the contrary, it proves that there is a continuing tax deferral so long as additional facilities are installed. This is precisely what Congress intended.

The sums generated by deferral of federal taxes, which otherwise would be paid if the company elects not to take advantage of "accelerated depreciation," said the commission, could not be construed as forcing a ratepayer to contribute capital to a utility. The deferral is a federal deferral, and to pass on to the ratepayer sums generated by such deferral and not record the liability therefor is neither objective regulatory practice nor in accordance with sound accounting principle.

The commission took exception to a statement that tax deferrals are an economy and that rates should be reduced in a like amount. The commission agreed, though, that so long as there exists a balance in the reserve for deferred federal income taxes, the benefit of that amount of interest-free capital should be passed on to the ratepayer.

Economic Depreciation

The company had sought an allowance for "additional depreciation required to provide for property consumed in rendering service." The commission held that only the depreciation charge based on the original cost of property used in providing service can be made a part of the cost of service in establishing rates.

If an "additional depreciation" allowance of the type advocated by the company were to be included in the cost of service, in setting rates, it appeared clear that the payment of these rates would involve an involuntary contribution of capital by customers. Certainly, said the com-

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mission, it is unreasonable to expect present customers to pay, in addition to the legitimate cost of service, an amount which may be needed to provide plant to serve future customers. The responsibility for supplying capital with which to build such plant rests with investors.

Other Expense Adjustments

In rejecting an adjustment for increased wages, the commission pointed out that actual operating experience is the best guide.

The staff's proposal for a downward adjustment in expenses relating to merchandising activities was accepted, the commission commenting that merchandising activity should bear a fair share of joint costs.

A proposal for a downward adjustment covering nonrecurring items was also accepted, the commission rejecting the company's contention that such adjustment was improper because nonrecurring expenses would recur in the future in other forms. Such a contention was speculative with respect to both frequency and amount of such items. Donations, contributions, and club dues were excluded.

Oil-gas Plants

The commission agreed with the staff's position that the company's oil-gas manufacturing facilities should be eliminated from the rate base in the test period, to-

gether with attendant operating expenses. The staff suggested that such facilities be retired and that the undepreciated portion of such property, after net removal costs had been met from the allocable portion of the depreciation reserve, be taken as an extraordinary property loss for federal income tax purposes. The remaining balance of original cost was to be amortized over a period of four years.

The commission was convinced that the facilities in question would have no value in case of an unforeseen emergency, since several weeks would be required to put the plants in operating condition. Likewise untenable was a company contention that it might be necessary to use such facilities to manufacture "volume gas." The cost of manufacturing any significant amount of "volume gas" would be prohibitive, and not in the public interest compared with the alternative of constructing additional pipeline and compressor facilities.

The commission concluded that the facilities should be retired, and that the test period should be adjusted to reflect such retirement. However, the commission added a sum to the annual amortization charges in recognition of property taxes assessed against the facilities, notwithstanding a staff contention that such expenses were out of period and that the company had accrued money subsequent to the test period. *Re Michigan Consol. Gas Co. D-3430-58.1, February 6, 1958.*



End of Preferential Water Rates for City Users Upheld

THE Pennsylvania superior court upheld the commission in denying preferential rates to water users in nine wards of the city of Pittsburgh served by South Pittsburgh Water Company. Under a contract between the company and the city the latter was treated as a single customer under a formula for determining the rate

to be charged customers within the city. After its expiration the company filed a supplemental tariff providing a new form of contract under which the city could elect to continue paying for all the water furnished its residents and receive a discount of 4 per cent.

This discount consisted of allowances

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for billing and collecting and for prompt payment. Under the old contract the city enjoyed a discount or rate differential of 17.6 per cent over that billed by the company to its customers in other areas. The commission had generally approved the new contract form.

Separate Rate Area Sought

Pittsburgh contended on appeal that the nine wards should be considered as a separate rate area by reason of the concentration of consumers and the alleged lower cost of service in the city. Rejecting this reasoning, as did the commission, the court observed that by the same reasoning any other municipality served by the company could claim preferential treatment so as to disrupt the rate regulation of this integrated utility. If the city were granted a preference because of relative proximity and density, the commission would have to grant the same preference to other groups similarly situated.

Relative costs between areas alone are not controlling, the court commented, though this factor may be considered

where, for example, separate classes of service or rate areas exist and where such a unit is marked by population, economic, social, and topographical characteristics peculiar to itself.

Evidence showed that the company was completely integrated and served 30 municipalities. The system was constructed without regard to city lines, the wards involved in this case being annexed by the city from charter territory of the company. Many distribution mains pass in and out of the city. In view of these facts, showing no operating or physical differences in serving the city which, by themselves, would give rise to a lesser cost for such service, the court could find no justification for treating the city as a separate rate area.

Finally, the city contended that the old rate, in effect for fourteen years, was proof in support of the city's position. The court noted that a prior rate structure is not res judicata on the question of reasonableness or discrimination. *City of Pittsburgh v. Pennsylvania Pub. Utility Commission*, 137 A2d 914.



Commission Rules on Tax Accruals, Merchandising Operations, and Unused Property

THE Missouri commission refused to allow an electric company to include cash working capital in its rate base, since the record showed that amounts needed for payment of operating expenses would be fully provided by taxes accrued and used for general corporate purposes until payable. The company had contended that maintenance of minimum bank balances at various locations in its trade territory was essential for efficient operation.

Cash working capital, said the commission, is usually defined in regulatory circles as the amount of cash necessary to meet current operating expenses incurred

and paid prior to the receipt of revenues related to such expenses. The commission had not in recent years allowed as a component of the rate base an allowance for minimum bank balances.

Merchandising operations and the income tax effect thereof were eliminated from operating revenues and expenses. With respect to accelerated depreciation, the company sought an allowance for deferred income taxes. The commission excluded the proposed amount.

Deduction of nonused property from the rate base should be accompanied by a related decrease in depreciation expense

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and property taxes, the commission said.

The increase authorized would produce a return of 6.39 per cent on a depreciated original cost rate base, or 3.69 per cent on

a trended cost rate base, which the commission did not consider excessive. *Re Empire Dist. Electric Co. Case No. 13,723, January 24, 1958.*



End of Amortization Period Figures in Rate Increase

THE Connecticut commission authorized a gas company to increase rates in an amount less than proposed by the applicant.

The state commission found that the 7-year amortization period for deducting natural gas conversion expenses would end in the latter part of 1959.

Although it was obvious that some rate

relief was needed to maintain the company's financial stability, the end of the amortization period would improve the company's operating income picture. The increase authorized would produce a return of 5.6 per cent and allow for a pay-out ratio of approximately 85 per cent to common shareholders. *Re Bridgeport Gas Co. Docket No. 9607, February 7, 1958.*



Quantity Token Sale Disapproved

THE Missouri commission denied a transit company's request for authority to issue 1,000 tokens for \$215, although the commission granted the company's request to sell two tokens for 45 cents. The sale of tokens in quantities of 1,000, commented the commission, effectively prohibits the ordinary transit rider from the lowest rate per ride. There was some question in the commission's mind as to whether the lower rate per ride would cover the company's cost of the ride.

Student Fares

The commission somewhat reluctantly approved the elimination of reduced student fares. A reduced fare of some sort for students had been in effect for many years. However, such a reduced fare had little but tradition in its support. It had been a form of subsidy to the student rider that the company was not in a position to make.

The present student fare was applicable upon the showing of an annual identification card purchased at a price of 50 cents. Although there was comparatively little

revenue involved, the commission believed that principles required the company to refund, upon request of the student identification card holder, one-half of the purchase price of the annual identification card, since it had been in use only one-half of the school year.

Transfer Charge

The company had also sought to impose a 3-cent transfer charge, contending that the average trip of the transfer rider was longer than that of the nontransfer rider. The commission agreed that the ride might be longer, but pointed out that the need to transfer was almost entirely a matter of accident of location. The inconvenience, delay, and annoyance incident to changing from one vehicle to another made the transfer ride a less desirable service to the patron, even though it might cost the company more to provide.

Since the commission authorized other substantial increases, and the success of the increases depended upon the riding public's acceptance, the commission pointed out that the additional charge for

PUBLIC UTILITIES FORTNIGHTLY

the less desirable transfer service could adversely affect the productivity of the entire fare structure, and denied the imposition of the transfer charge.

Return Allowance

Without the transfer charge the commission noted that intrastate operations for the next year would produce a return of approximately 6.4 per cent on an

original cost depreciated rate base from which to make reservation for surplus and contingencies. On the same basis, the company's system operations would produce a return of 2.8 per cent. The commission concluded that the intrastate return was within a zone of reasonableness and not excessive. *Re Kansas City Pub. Service Co. Case No. 13,850, January 23, 1958.*



Court Determination Res Judicata in Reparation Case before Commission

THE California commission dismissed a complaint by a customer of a gas and electric company for reparation based on a claim that the company had failed to advise him that he could avail himself of lower rates under certain schedules than the rates under which he was actually served.

The customer did not complain of the reasonableness of the rates.

The company asserted res judicata, pointing out that the case had already been adjudicated by a court and that the instant complaint was only a restatement of the earlier judicial action.

In cases of excessive charges or discrimination requiring the exercise of administrative functions, jurisdiction to award reparation rests exclusively with the commission. The courts have concurrent jurisdiction in other reparation cases. The instant proceeding is the type of reparation proceeding in which the courts as well as the commission have jurisdiction, it was noted. The commission ruled that the doctrine of res judicata applied, necessitating dismissal of the complaint. *Taylor (Taylor Foundry & Mfg. Co.) v. Pacific Gas & E. Co. Decision No. 56243, Case No. 5959, February 18, 1958.*



Electric Rates for Street Lighting, Traffic Signal, and Combined Lighting and Power Simplified

THE Wisconsin commission authorized Wisconsin Power & Light Company to revise its rates for street-lighting service, traffic signal service, large combined lighting and power service, and optional seasonal rural electric service. The changes were made for the purpose of simplification and removal of discriminatory inequities.

Some customers would benefit while others would receive increased bills. The overall effect of the changes would not materially affect the company's earnings.

Traffic signal service has been furnished under several optional conditions resulting in unnecessary complications. The proposed change would substitute a single schedule for that service.

Combined Light and Power Customers

Rates for combined light and power service were increased. But the change would not affect customers whose monthly use did not exceed 50,000 kilowatt-hours. The proposed change was intended to cure a discriminatory condition existing

PROGRESS OF REGULATION

in the combined light and power rate as compared to the industrial power rate. A utility may supply industrial power service under less stringent voltage regulations than required for lighting loads. Industrial power rates can thus be set at a lower level than combined lighting and power rates.

However, through an oversight, the existing rate at certain load factors and consumptions was lower than the industrial

rate. The company's proposal was intended to maintain the same differential between the combined rate and the industrial power rate for consumptions greater than 50,000 kilowatt-hours that exists at the 50,000-kilowatt-hour use.

The state commission believed that this discrimination should be corrected and that the company's proposal was reasonable. *Re Wisconsin Power & Light Co. 2-U-4840, February 6, 1958.*

Other Recent Rulings

Pipeline Gas Allocation. The Federal Power Commission ordered allocations of gas from Panhandle Eastern Pipe Line Company and Trunkline Gas Company to serve a number of small Illinois communities, upon proof of the pipelines' adequate capacity as shown by the commission's findings in previous proceedings. *Re Town Gas Co. of Illinois et al. Docket Nos. G-9749 et al. January 22, 1958.*

Private Use. A federal court held that the Minnesota commission's denial of a corporation's request that a site on a railroad's right of way be set aside for its use as a public warehouse was supported by evidence showing that the corporation, which was not a licensed public warehouse, had formerly used the site as a public warehouse for storage of gasoline under a lease with the railroad, which lease was canceled, and that the corporation would not make a different use of the site. *Range Oil Supply Co. v. Chicago, R. I. & P. R. Co. 248 F2d 477.*

Pilot Rating Suspension. A federal court found that the Civil Aeronautics Board had properly suspended a pilot's rating for six months because of an ac-

cident resulting from poor planning and execution of the approach to an airport, although he was not found to be unqualified to fly and had violated no rule, regulation, or statute. *Hard v. Civil Aeronautics Board, 248 F2d 761.*

Mandamus Discretionary. A California court in an action to compel a water district to supply water at a particular tap, held that mandamus is a remedy which is granted not as a matter of right but in the exercise of sound judicial discretion. *Moore et al. v. Twentynine Palms County Water Dist. et al. 318 P2d 751.*

Train Discontinuance Warranted. The Louisiana supreme court affirmed a lower court's annulment of a commission order denying a railroad permission to discontinue passenger trains where the record showed that, even if the railroad as a whole operated at a profit, losses occasioned by the passenger service in question were out of proportion to public demand. *Texas & N. O. R. Co. v. Louisiana Pub. Service Commission, 98 So2d 189.*

Inadequate Hearing. The Texas supreme court held that commission orders

PUBLIC UTILITIES FORTNIGHTLY

authorizing amendments to motor carrier certificates were arbitrary and void for lack of supporting evidence where, without hearing public witnesses and permitting protestants to cross-examine, the commission had allowed the applicants to adopt the record in a previous proceeding. *Texas R. Commission et al. v. Alamo Express, Inc. et al.* 308 SW2d 843.

Gas Rate Increase. A small gas company obtained authority from the Colorado commission to increase rates sufficient to afford a return of 6.99 per cent. *Re Rocky Mountain Nat. Gas Co., Inc. I. & S. Docket No. 408, Decision No. 49518, January 24, 1958.*

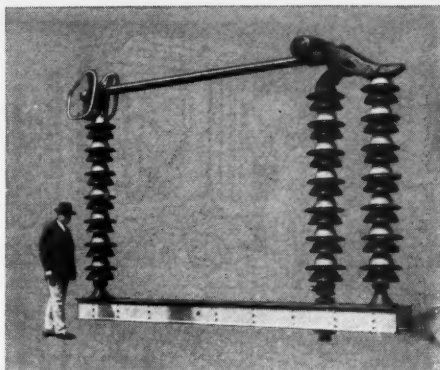
Sale of Telephone Company. The Illinois commission approved a telephone company's application for authority to purchase the plant and properties of a mutual company upon a showing that the service presently provided was inadequate, that the seller did not have resources to provide adequate service, that the sales contract set forth a fair and reasonable price, and that the applicant was ready, willing, and able to provide adequate service. *Re Illinois Bell Teleph. Co. 44631, January 7, 1958.*

Telephone Acquisition and Certificate. The Illinois commission granted a telephone company authority to purchase properties of a contiguous exchange and a certificate to operate in the newly acquired area upon a showing that the company was ready, willing, and able to provide service and that both area subscribers and the general public would benefit. *Re Western Illinois Teleph. Co. 44565, January 7, 1958.*

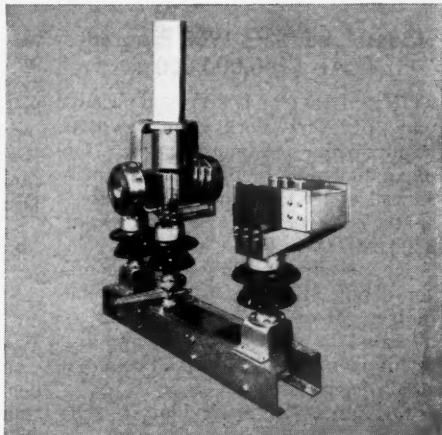
Carrier's Status. The Iowa supreme court, in upholding a commission determination that a contract carrier was illegally operating as a common carrier, commented that the true character of the carrier's operation is determined by what it has been doing rather than what it says it has been doing, and that limitations on service, unless substantial, will not affect a common carrier operation as a public service. *Circle Express Co. v. Iowa State Commerce Commission et al.* 86 NW2d 888.

Straight-line Depreciation. The North Carolina commission authorized Virginia Electric & Power Company to substitute, for accounting purposes only, straight-line depreciation for the 6 per cent compound interest method, so that level annual charges will be made over the estimated remaining service life of existing property, with annual charges on new property at a rate of 3 per cent for electric property, 2.6 per cent for gas property, and 2.3 per cent for common utility property. *Re Virginia Electric & Power Co. Docket No. E-22, Sub 36, February 27, 1958.*

More Evidence on Producer Rates. The Federal Power Commission denied motions by staff counsel and independent natural gas producers to terminate rate proceedings on grounds of lack of jurisdiction and erroneous ex parte suspension of contract rates, in view of considerable evidence in the record tending to show the necessity of increased rates in order to maintain gas reserves and the current level of deliveries. *Re United Carbon Co. et al. Docket Nos. G-9572, G-9573, February 19, 1958.*



A big MK-40—345kv, 1600-ampere single-pole unit.



Another big one—a 34.5kv, 4000-ampere MK-40 single-pole air switch in locked-open position.

ET LOWER OPERATING COSTS, LONG-TIME DEPENDABILITY with rugged DELTA-STAR MK-40 Air Switches

Design features of MK-40 switches

- Simplified, factory-sealed blade-operating mechanism develops maximum force where most needed, locks blade in both open and closed positions.
- Same basic design in all rated sizes: 7.5kv to 400kv, 400 to 5000 amperes.
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- Fully adjustable mechanism; non-slip, pipe-piercing set screws.

These popular vertical-break switches offer long service life with lowest installation and maintenance cost.

They're built to withstand rugged service under severe ice and corrosive atmospheric conditions.

They're built to assure the best electrical and mechanical characteristics. High-pressure silver-to-copper or silver-to-silver contacts—minimum current interchange surfaces.

They're built to maintain contact pressure over years of service. Ample material is provided to dissipate heat even under short-circuit conditions.

MK-40 switches are available in current ratings from 400 to 5000 amperes. 7.5 to 400kv.

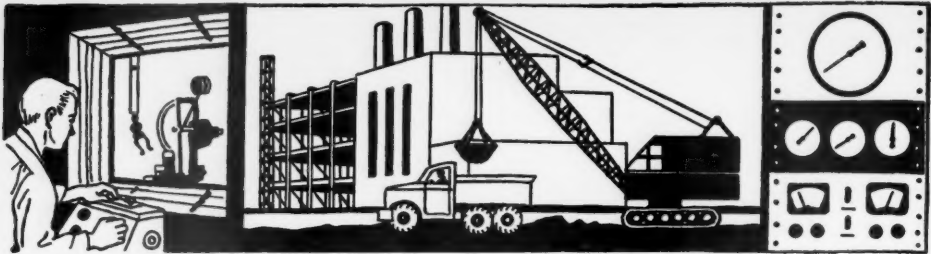
For full technical information, call your nearest Delta-Star representative or write *Delta-Star Electric Division, H. K. Porter Company, Inc., 2437 Fullon Street, Chicago 12, Illinois*; District offices in principal cities.

H. K. PORTER COMPANY, INC.

DELTA-STAR ELECTRIC DIVISION

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1967 PUBLIC UTILITIES FORTNIGHTLY



Industrial Progress

Consol. Ed. Sets 1958 Program At \$200,000,000

CONSOLIDATED Edison Company of New York estimates that requirements for more service—the expanding uses by present customers as well as new customers—will necessitate construction expenditures of \$200,000,000 in 1958.

New electric facilities will account for about \$185,000,000 of the total budget. Most of the remainder is allocated to the gas and steam distribution systems and plant common to all departments.

Of the total electric budget, generating station facilities account for approximately \$80,000,000. Heavy expenditures will be made on the turbine-generator unit at the Arthur Kill station in Staten Island and the two units at Astoria station in Queens. At the Indian Point nuclear generating station excavation and work on foundations will proceed, and steel erection work on the giant sphere will start.

New Brochure Presents Expanded Ross Facilities and Heat Transfer Products

JUST published, a new illustrated brochure describes the men, facilities and products of American-Standard, Ross Heat Exchanger Division. Titled "This is Ross—Ready for You," the publication shows how Ross puts primary emphasis on engineering in its exclusive role as a heat transfer specialist. Numerous illustrations demonstrate the broad range of applications for Ross equipment in practically every industry. Picture strips highlight the modern engineering and fabricating facilities in the newly-built Ross plant devoted completely to large surface condensers and specially engineered exchangers. Photos also show the origi-

nal plant where smaller, standardized units are mass produced. Ross is said to produce industry's most complete line of heat transfer equipment.

Copies of brochure title "This Is Ross" can be obtained from American-Standard, Ross Heat Exchanger Division, Buffalo 5, New York.

Pennsylvania Power Puts Five- Year Construction Outlays At \$198,000,000

PENNSYLVANIA Power & Light Company expects construction expenditures for 1958 through 1962 will total \$198,000,000, with the outlay this year an estimated \$27,000,000, the annual report stated.

Future expenditures, it is planned, will include \$42,000,000 in 1959, \$49,000,000 in 1960, \$37,000,000 in 1961 and \$43,000,000 in 1962. The largest expenditure this year will be for the new power plant at Brunner Island, 15 miles below Harrisburg on the Susquehanna river, and the largest unit, with a capability of 330,000 kilowatts, is expected to be in service late in 1960.

Record Construction Set for 1958 By Potomac Electric Power Co.

POTOMAC Electric Power Company announced in its annual report it will undertake a record \$60,000,000 construction program this year, principally for additional generating and transmission facilities.

This is the largest construction program in the history of the company.

California Electric Power Plans Outlays of \$21.3 Million

CALIFORNIA Electric Power Company's construction program for the current year calls for expenditures of \$21,300,000, according to the annual report.

A-C Releases New Synchronous Generator Bulletin

ALLIS-CHALMERS line of signed synchronous generator single bearing units for internal combustion engines, close-coupled standard SAE flanges, or in two ing units for belt drives or connection is described in a new letin released by the company.

Available in ratings from through 150 kw at 1800 rpm from 50 through 300 kw at 1200 the generators are designed to p efficient and economical stand continuous service in a full ran sizes from 37.5 to 375 kva.

Many of the construction fe of the redesigned high-speed chronous generators are found in large low-speed rotating ement, including field poles dov to the shaft for maximum safe protection.

Copies of the new bulletin, 8909, are available on request Allis-Chalmers, Milwaukee 1, consin.

Pacific Power & Lt. to Spend \$58,906,000 for 1958 Construction

PACIFIC Power & Light Com 1958 construction program—a breaker for the third consecutive —will see the completion of major power generation p which will add 349,000 kilow generating capacity to the com resources.

Pacific will spend \$58,906,000 ing the year to complete w Swift, Merwin and the Dave ton plants, construct transmissi cilities and to expand and in services for customers in the state operating area.

Work on power development ects and related transmission

INDUSTRIAL PROGRESS—(Continued)

require more than \$42,000,000 of the total budget.

The first phases of the program include completion of these generating units:

1. A hydroelectric project on the Lewis river, with capacity rating of 100,000 kilowatts and maximum output of 200,000 kilowatts. Swift will become the world's highest earthen dam.

2. A 100,000-kilowatt Dave Johnston electric plant near Glenwood, which will be fired by brown deposits PP&L is developing in Converse county.

3. Installation of a third 45,000-kilowatt generating unit at the Merwin dam on the Lewis river.

Helicopter Aids in Setting Poles and Towers

Several unusual uses of the versatile helicopter have been reported by Southern California Edison Com-

pany. A Sikorsky (Sikorsky) whirlybird was used by the company recently for precision jobs as setting wooden distribution poles, pouring concrete and placing huge sections of steel transmission towers—all in rugged mountain terrain.

In one spectacular operation, the helicopter even picked up a complete transmission tower, carried it over ridges and canyons and then placed it gently on its spot several miles away.

As part of what will become a 100-volt transmission line linking San Luis Obispo's Saugus and Chatsworth substations was built entirely without the use of access roads in the Santa Sierra Mountains, company officials reported.

Concrete and equipment were flown to clear each tower site and pour foundation holes. Cement hopper trucks were then airlifted to the sites to deposit the concrete loads, and the helicopter made the actual deliveries. The towers, having capacities of 1/2-cubic yard and equipped with rubberized tires, were loaded on the ground, attached to a hook dangling beneath the helicopter.

After pouring concrete for the four footings of a tower was poured in about 15 minutes—a job normally requiring a full day using ground forces.

When joining the tower sections, the engineers devised a special "guide shoes." As the helicopter moved into position, the "shoes" were lowered over the "feet" of each new

section and held rigidly until it could be bolted.

In two other recent Edison construction jobs, wooden distribution poles—fully equipped with crossarms and insulators—were set entirely by helicopter.

In the Le Cumbre Peak area north of Santa Barbara, 20 poles were set in holes in the first hour of operation. Similarly impressive-time-saving figures are expected to emerge from another pole-setting operation now underway in the High Sierra.

Edison is building a 16,000-volt power line from the company's Big Creek powerhouse No. 8, near Kinsman Flat, to the construction site of its \$49,600,000 Mammoth Pool hydroelectric project. The poles are being flown to positions ranging from a few hundred yards to 12 miles.

New RLM Standard Specification Book

THE RLM Standards Institute has just published the 1958 Edition of the RLM Standard Specifications Book, a reference guide designed for all persons concerned with the purchasing, specifying or selling of industrial lighting units.

To keep pace with latest lighting developments, RLM Standard Specifications for fluorescent and incandescent fixtures most widely specified for modern industrial lighting have been further strengthened in the areas of efficiency, design and construction quality. New specifications are also included in the 1958 Specification Book covering: 1) 2 lamp and 3 lamp Special Service fluorescent units; 2) 3 types of units utilizing 800 ma. fluorescent lamps; 3) new incandescent reflector sizes; 4) new mounting specifications for fluorescent units.

Technical data in the new 1958 Edition has been simplified and condensed by incorporating all specifications pertinent to all fixtures into a new, single Specification "101." As an added convenience feature, each individual specification is contained on the front and back side of a single page. Pages may be easily detached from the book and placed with a lighting equipment quotation or specification.

Copies of the 1958 RLM Standard Specifications Book are available without cost or obligation from the RLM Standards Institute, 326 W. Madison street, Chicago 6, Illinois.

(Continued on page 26)

FULL

LENGTH

TREATMENT
OF YOUR
POLES



WILL MAKE THEM
**LAST YEARS
LONGER**

Even though your poles were choice specimens before placement, 10 or 15 years ago, they are probably "ready to go" now, unless they receive proper treating.

Osmose full length treatment PROTECTS a utility pole from TOP to BOTTOM from wood destroying fungus decay. Osmose crews, through its subsidiary, Pole Sprayers, Inc., will treat and save your decayed poles for a small fraction of their replacement cost.

SEND FOR THIS!

We have an illustrated, fact-filled booklet that explains and illustrates how your company can make substantial savings in your pole plant as well as enhance safety and continuity of service.

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The Cleveland 80W ...a real money maker



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INDUSTRIAL PROGRESS (Continued)

Fasco Industries Appoints N. Y.-N. J. Manager of

E. B. THOMPSON, vice president in charge of sales of the Consumer Products Division of Fasco Industries, announces the appointment of Joseph Lovett as manager of sales for the greater New York-New Jersey area. Formerly with Knapp-McCormick and Revere Copper & Brass, Lovett will direct the sales of portable fans, ventilating fans, power range hoods. Fasco will have a sales office in New York City shortly.

A. P. Bowman, J. I. Onarheim Named to New Posts at

ALLIS-CHALMERS has named A. P. Bowman manager of the Milwaukee district office and J. I. Onarheim to the new post of manager of utility sales, Milwaukee district. Mr. Bowman was manager of the company's Rockford, Ill. office since 1956. Mr. Onarheim was a sales representative in Milwaukee since 1948.

Opportunities of Electrical Engineers Explained to Students in New Booklet

THE vital role of the electrical engineer in the world of today and even more extensive opportunities tomorrow's "world without limits" are explained to pre-college students in the illustrated booklet, "The Indispensable Man," released by the American Institute of Electrical Engineers.

The booklet emphasizes the interdependency of modern civilization and the achievements of the electrical engineer which have made him indispensable. The great need for engineers in the future is pointed out, and the steps an interested boy can take to follow a career in the many fields of electrical engineering are outlined.

The student is advised on how to prepare in high school for the study of engineering in college and the general aspects of a college-level engineering curriculum are described. A list of colleges and universities offering accredited curricula to a degree in electrical engineering is included. The opportunities available to a student after graduation and the procedures he must follow to become a licensed engineer are discussed.

(Continued on page 28)

PUBLIC UTILITIES FORTNIGHTLY

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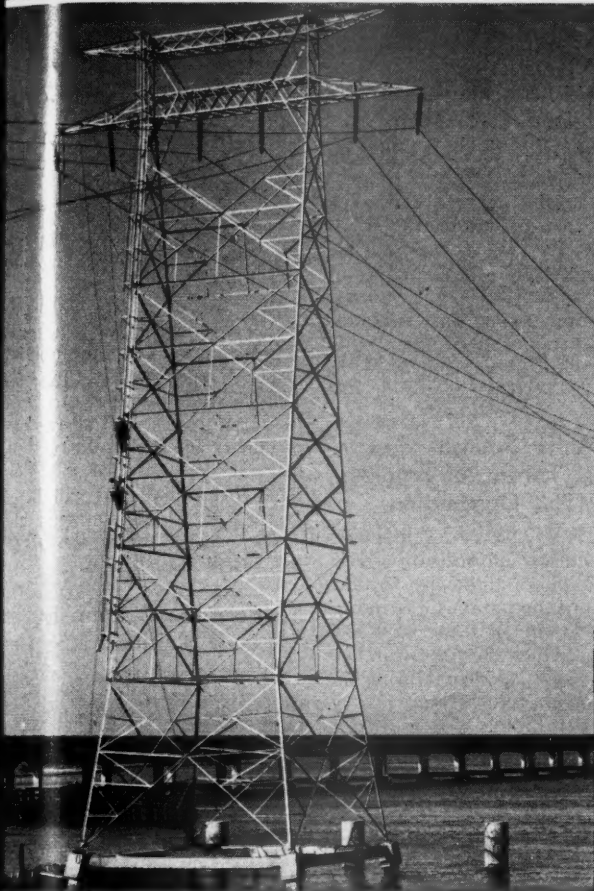
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***This was the problem in
Houston... This is how
Anchor helped solve it***

The Houston Lighting & Power Company was building a major transmission line to the island city of Galveston. Crossing the Intra-coastal Waterway presented a problem in transmission tower design: make them high enough to provide clearance for ships, yet not so tall as to present a hazard to aircraft.

Anchor Metals, working closely with Houston Lighting & Power Company engineers, helped design towers to meet the unusual requirements.

In approximately one month, the special towers were detailed, fabricated and shipped. And Houston Lighting & Power Company was able to continue its expansion program without serious delay in construction.

At Anchor, service and quality is the slide rule of every operation.



CLYDE F. MOONEY, PRESIDENT



HURST, TEXAS • FORT MADISON, IOWA



The three main branches of electrical engineering—electronics communications and power—and the different types of work in each branch are covered. A brief review of the history of electrical engineering and an explanation of how the engineer differs from and works with the scientist are also presented.

The booklet may be obtained, free of charge, by addressing requests to the American Institute of Electrical Engineers, 33 West 39th Street, New York 18, New York.

Cleveland Trencher Appoints Western Pennsylvania Distributor

A. T. GREEN Machinery Company, Route 8, Pittsburgh, Pennsylvania, has been appointed as distributors for the complete line of Cleveland trenchers, sidecranes, backfillers and tampers in western Pennsylvania.

Green's sales, parts and service personnel have been factory-trained at the Cleveland Trencher Company. They are now servicing Cleveland equipment from a complete stock of genuine Cleveland parts.

Cleveland trenchers and backfillers have a wide range of applications. There are six wheel-type trencher models in the line with digging capacities ranging from 9 to 52 inches in width and to 7 feet, six inches in depth. They are employed on trenching projects of all types: utilities distribution work, building footings and foundations, farm drainage and irrigation trenching, cable and conduit installation, highway widening and drainage, sewer and water lines, field and gathering lines and cross-country pipelines. The Cleveland line also includes two sidecrane-backfiller models. The smaller model also includes a tamper unit and is widely used in utilities distribution work. The larger model is used principally for pipeline backfilling and heavy duty applications.

West Penn Electric Budgets \$52,000,000 for Expansion In 1958

WEST Penn Electric Company and subsidiaries have budgeted \$52,000,000 for gross property additions this year, the annual report said.

This will include initial expenditures for a second generating unit at Willow Island station of Monongahela Power Company which will have a rating of 165,000 kilowatts and is expected to be in operation by 1960.

\$65,000,000 Program Planned by Cleveland Elec. Illum.

IN order to assure its ability to keep pace with the electric needs of Northeast Ohio in the years ahead, The Cleveland Electric Illuminating Company has set its 1958 expansion program at \$65,000,000—an all-time company high.

Construction expenditures amounted to \$38,000,000 in 1957, increasing property and plant value by 7.3 per cent, to \$472,000,000.

A.G.A. to Sponsor Gas Appliance "Parade of Progress" At 1958 Convention

SIGNIFICANT NEW developments in gas appliances and utilization technology will be dramatically demonstrated before the nation's gas industry leaders at the "Parade of Progress" exhibit which the American Gas Association will sponsor during its annual convention in Atlantic City, N. J., October 13-15.

H. Vinton Potter, vice president of Oklahoma Natural Gas Company, Tulsa, Okla., and chairman of A.G.A.'s Exhibit Planning Committee, reports that the "Parade of Progress" will be educational rather than promotional in nature. Exhibits will be limited to gas utilization items which have become commercially available since October, 1956, or that will soon become commercially available, and to prototypes of important new gas utilization devices still under development.

Exhibit will be on an invitational basis, issued by the Exhibit Planning Committee. Final selection of items that qualify under the ground rules will be made by Mr. Potter's committee, with the assistance of the Association staff and the General Convention Committee. Sales managers of member gas utilities have been asked to help by suggesting gas utilization items that they believe would meet the ground rules for the exhibit and that should be considered for inclusion in the "Parade of Progress."

"Parade of Progress" exhibits will be limited to important new developments in gas utilization and will not include full lines of equipment, refinements in styling or design. Invitations will be sent to the manufacturer or developer of a new utilization item rather than to the commercial user. Displays will be working models and will be demonstrated to emphasize the new development rather than the appliance itself. Items must be

A.G.A.-approved if they are commercially available. Exhibits will be limited to members of A.G.A. and the Gas Appliance Manufacturers Association.

High on the list of attractions for the October convention exhibit will be a dramatic "Parade of New Free Gas Kitchens and Laundries."

One section of the exhibit will be devoted to new developments in residential gas summer air conditioning. Other displays will feature gas heaters and smokeless or oilless incinerators, as well as various types of new residential, industrial and commercial gas utilization equipment. Also to be displayed will be exhibits from A.G.A. Laboratories and agencies with which the Association has research contracts.

Sanborn Map Company Creates New Division for Service

CREATION OF New Special Service Division of the Sanborn Map Company (Pelham, N. Y.), to emphasize the company's activities in the field of municipal, county, state and federal government and private enterprises including public utilities, has been announced by C. P. Herbell, president.

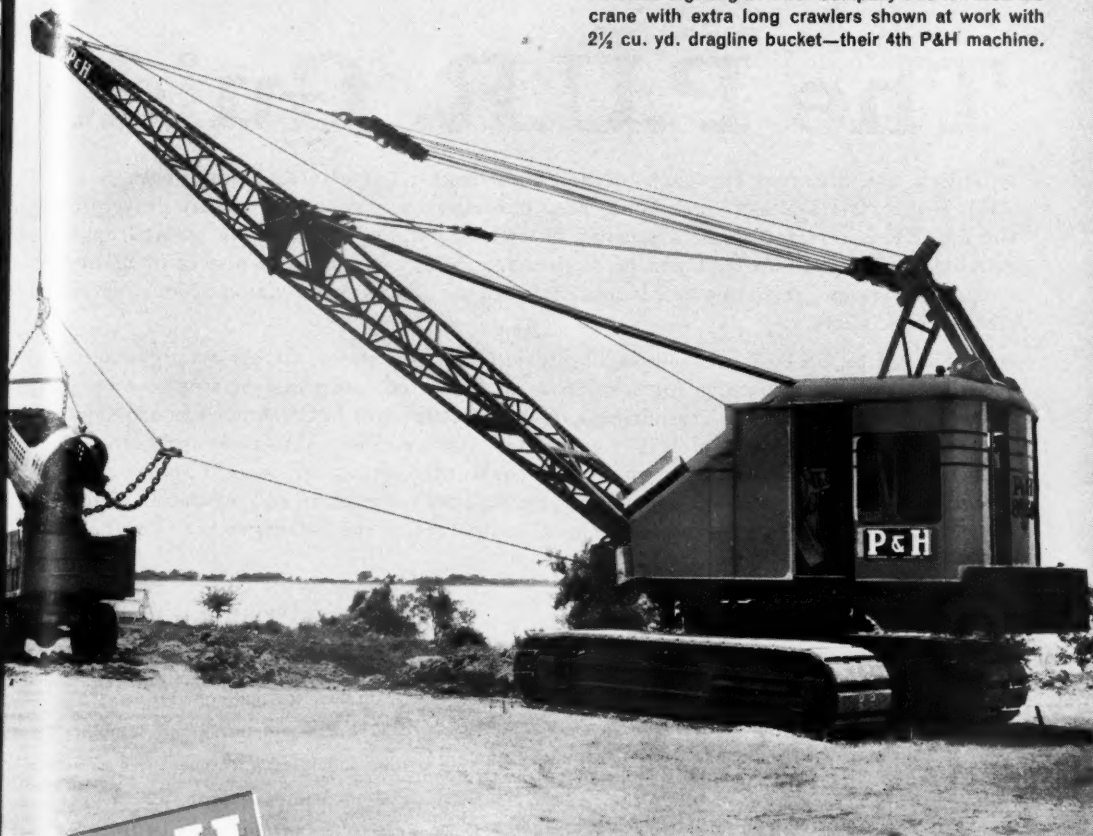
The new Division is headed by Vice President Carroll F. Doherty, who has been associated with the company since 1923. R. B. Hollister, company secretary-treasurer, has been named manager of Utility Services, including electric, gas and oil companies and R. E. Barraclough, director of planning activity, Sanborn Service Division.

The Division will concentrate on mapping services for city and regional planning agencies and public utilities. The latter field is directed at organizations in public services such as electric, gas, water, telephone, and transit.

Sanborn map service utilizes fields outside of fire insurance, land use, property ownership, transmission and distribution, along with regulatory and planning devices, economic classification, building condition, population distribution, parking and community facilities and traffic flow. Such maps are brought up to date annually.

In its Special Services section, Sanborn calls upon a vast accumulation of land use information which has acquired since inception of mapping in the middle of the nineteenth Century. Sanborn has mapped almost every United States town more than 2,000.

Houston Lighting & Power Company's 50-ton 855B-LC crane with extra long crawlers shown at work with 2½ cu. yd. dragline bucket—their 4th P&H machine.



in **P&H** truck cranes and excavators the swing's the thing!

Live roller circle—a P&H exclusive—gives this 50-ton P&H 855B-LC the smoothest, fastest swings in the industry. Just one of many reasons why it out-loads, out-lifts, out-digs and out-performs other machines in the 50-ton class. Other profitable performance features include:

- **P&H triple safe planetary boom hoist for accurate lowering of boom under power**
- **Hydraulic controls for smooth, precise operation**
- **Rugged alloy steel, lattice-type boom**

- **Larger P&H brakes for better braking action**
- **Sturdy, all-welded construction**

Each year more and more public utilities upgrade their equipment to the greater speed, power, flexibility and profitable performance of P&H truck cranes and excavators. Get the facts from your P&H dealer. Or write for full information.

HARNISCHFEGER

Construction & Mining Division
Milwaukee 46, Wisconsin

The P.U.R. Guide

► A new and different approach to the educational needs of utility employees — called **THE P.U.R. GUIDE** — is now being used by many companies. Somewhat descriptively, the **GUIDE** is referred to as “a journey of understanding.” It takes the user through the economics of public utilities and through many other non-technical phases of utility operation. It was organized by and is issued under the general supervision of an experienced staff of specialists.

► **THE P.U.R. GUIDE** program is a systematically and consecutively arranged series of weekly lessons, in pamphlet form, offering a simplified, progressive, step-by-step story about the nature of the utility business, its important place in the American economy, the present conditions under which it is conducted, its day-to-day objectives and responsibilities, the existing problems with which it is confronted and other current subjects arising in connection with organization, financing, management, operation and regulation. This program adds guidance to experience in the development of the “management team.”



Features of THE P.U.R. GUIDE

- 50 issues of 8 pages (one each week)
- Certificate of meritorious completion
- Glossary of words and terms and complete index
- Ring binder embossed with enrollee's name
- Leader's Manual for group discussion
- Occasional reprints from *Public Utilities Fortnightly*
- Enrollments on company order only
- Next group—April 1, 1958.

Comments about THE P.U.R. GUIDE

One of the best educational programs we have had in years.

Division Manager

We all feel that this is a program that is needed in the public utility industry.

Vice President

I know of no better source for obtaining information it contains.

District Manager

I am sure that this new publication will prove of great value in the training of our younger personnel.

President

All of the men are interested and believe the studies to be quite worthwhile to them.

Division Manager

I am sure the total series of 52 will prove of inestimable value to the utility industry.

Vice President & General Manager

I would like to have received it twenty years ago.

Division Manager

We feel that **THE P.U.R. GUIDE** training program is being well received.

Training Coordinator

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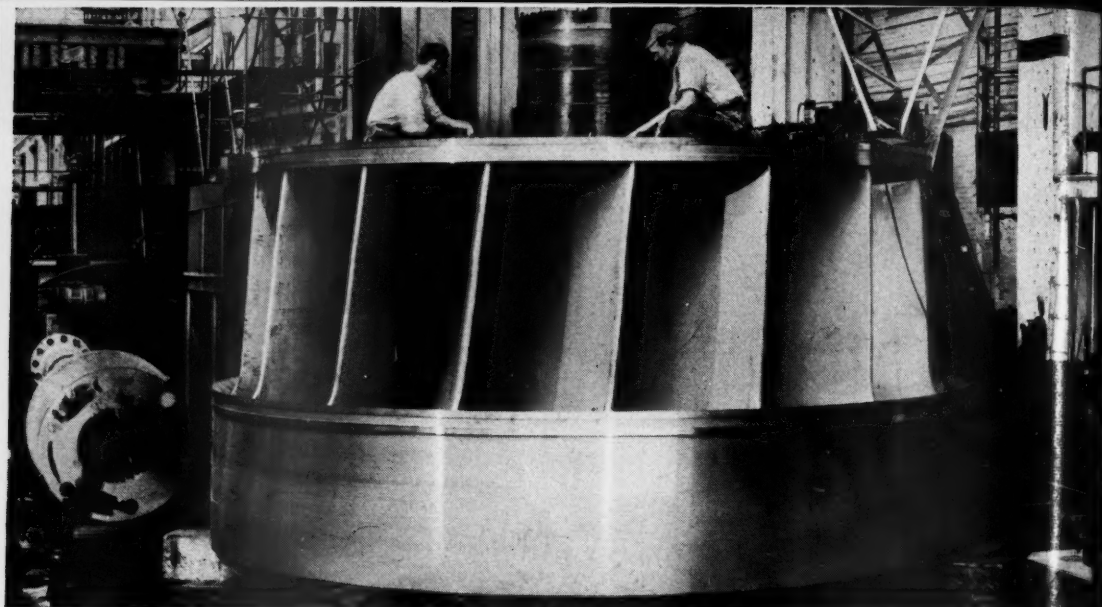
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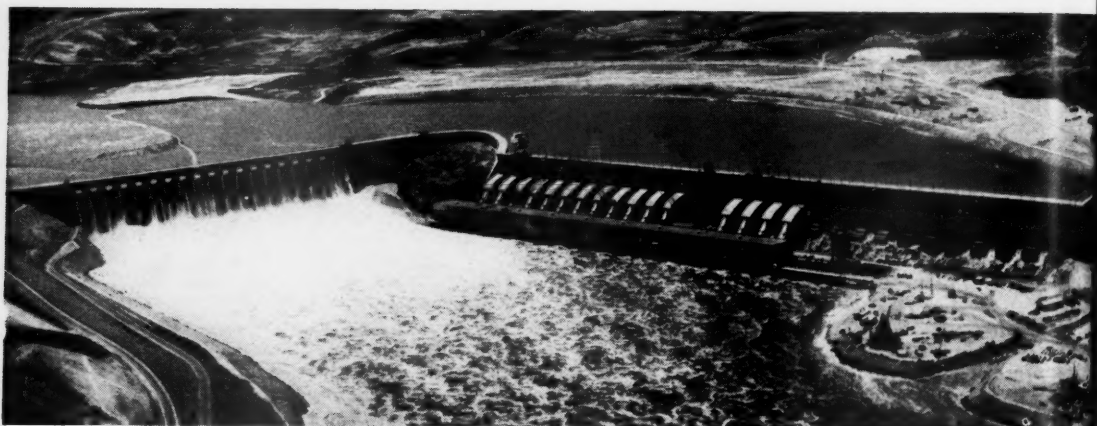
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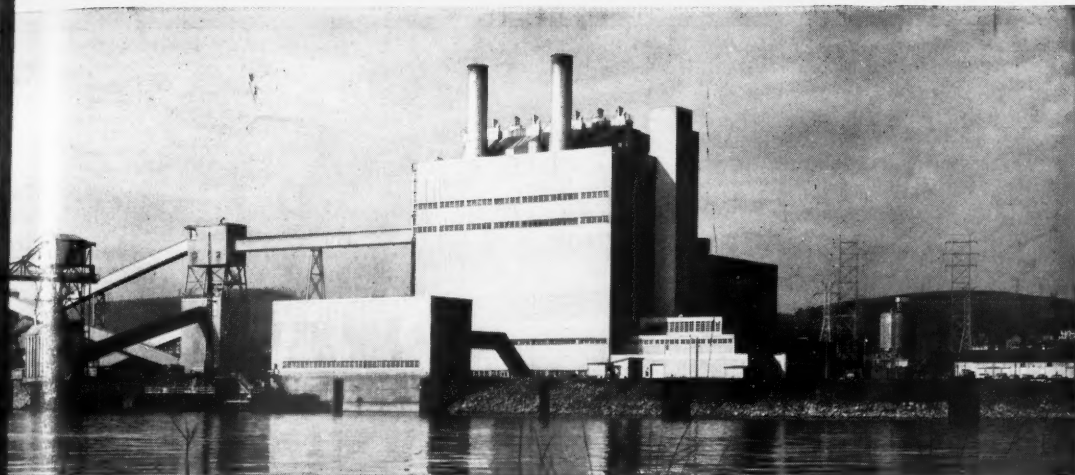
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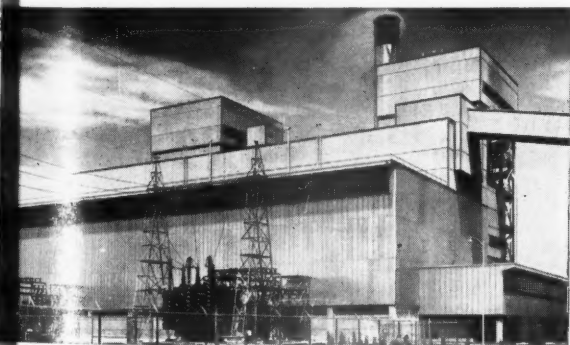
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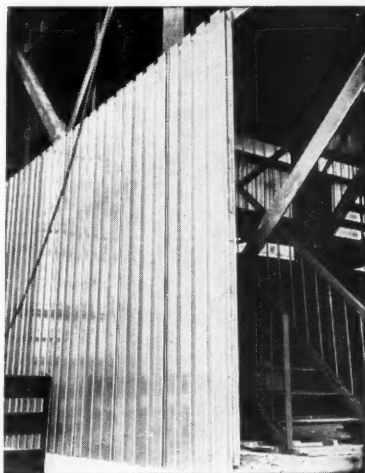


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